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Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

BIRMINGHAM GENERAL HOSPITAL.

ACUTE TUBERCULOSIS IN AN INSIDIOUS FORM: DEATH FROM CONTINUED FEVER.

Under the care of JAMES RUSSELL, M.D.

[*Clinical Clerk*—CHARLES WALLS, Esq.]

E. P., aged 14, living at home, a well made girl, was admitted on May 15th. The following history was given by her mother. She was much alarmed last Christmas by witnessing a serious accident. In the course of the following night, she was seized with profuse menstrual discharge, although at that time she was not fourteen, and had not had the least indication of the approach of menstruation. The attacks of menorrhagia recurred four times, each time with less severity than the last. Five weeks ago, she was startled by a very trifling occurrence; and immediate return of the menorrhagia was the consequence. Ever since the period of her first alarm, a marked change has taken place in her general condition; from being lively and spirited, she became dull: she complained of constant weariness, and lost flesh.

She has now been laid by for seven weeks "with a cold"; has had shivering, perspiration, thirst, and loss of appetite. This day week, she was delirious, and was often so during the ensuing week. She vomited frequently, especially after taking food. She had not had jaundice. She was purged very profusely two days before admission, the stools being very black. She has kept her bed for a fortnight, though, up to the last two days, she has got up for an hour or two. She lives in a solitary house, with no other dwelling nearer than a mile and half. No case of fever is known in her neighbourhood. Excepting two visits to the Queen's Hospital as an out-patient, and two to a surgeon, she has been closely at home.

Present State. Pulse 128. The respiration was 60, frequently interrupted by crying and moaning. She lies on her side. The tongue is rather red, coated in the middle with a thick yellow hairy fur. She has been somewhat delirious, and has tried to get out of bed; but is obedient to directions, and makes signs for drink. There is slight occasional cough. The abdomen is flat and soft. There is no eruption. She was ordered ammoniæ sesquicarbonatis gr. v, ætheris chlorici ɱviij, every three hours. Half an ounce of wine was to be given every second hour, and beef-tea.

May 16th. Pulse 136, very feeble; respirations 50. The tongue is moist. She has very little cough. She was delirious all night. She has had no stool; the urine is copious. She was ordered an ounce of wine every two hours, and two glasses of brandy in the day.

May 17th. Pulse and respiration as before. She passed a nearly sleepless night, with delirium. She has had four stools, brown, and containing much solid matter. The urine is abundant, light coloured, acid. She has no cough. The chest is perfectly resonant. The face is dusky. The teeth have sordes; the tongue is not brown, but dry; but she lies with her mouth open. The bowels are flat. She still lies on her side. There is no eruption. She takes what is ordered. She was ordered to have an ounce of brandy every three hours, and an ounce of wine hourly.

May 18th. Pulse 136, very feeble; respiration 36. The heart's sounds are very feeble.

May 19th. She has been greatly disturbed through the night, shrieking vehemently and incessantly until quieted by an opiate of nine minims of liquor opii, of which three doses were required. The face is rather livid, bathed in perspiration. She has just awoke, and is shrieking and calling for her sister; but is quite obedient to directions. In the evening, the pulse could not be counted.

May 20th. Violent shrieking continues; but she is quite sensible to external events, and replies to questions. Pulse 150; respirations 54. The tongue is moist, and cleaner. The pupils are natural; the eyes are not injected. The bowels have not been opened for two or three days. There is no eruption.

She died on the 24th, with no important change in her symptoms. She was constantly shrieking and crying out, unless quieted by an opiate, yet remained obedient to any directions; and the expression of her face was natural. Her pulse varied from 152 to 136; the respirations about 56. Her urine was passed involuntarily the last two days only. The treatment consisted in the free administration of stimulants and of milk, of which she drank freely.

SECTIO CADAVERIS, twenty-four hours after death. The lips were livid. The body was not much wasted. *Head.* The tissue of the brain was perfectly healthy. The large vessels of the pia mater were full of dark blood, and there were numerous bloody points throughout the substance of the brain. *Chest.* The heart was firm; both ventricles were about half-full of dark semi-coagulated blood. Both lungs were entirely filled with miliary tubercles, which were scattered thickly and equally throughout their entire substance; the pulmonary tissue was not more loaded with blood than would be explained by the process of dying, which was very protracted; several of the pulmonary lobules were imperfectly distended with air. The bronchial tubes were very slightly congested, and were nearly free from mucus. *Abdomen.* The intestines and stomach were perfectly healthy, excepting that the walls of the former were thin. The mesenteric glands were healthy. The surface of the liver was thickly dotted over with minute adherent flakes of lymph, between which the serous covering was perfectly natural; the substance of the liver was quite free from tubercle. The spleen contained one or two miliary tubercles. Miliary tubercles were thinly scattered through the substance of the kidneys. The epithelial cells of the kidneys were filled with granular matter—in many of the tubes, to such an extent as to conceal the ordinary cell-structure. The tubes broke up so readily, and the cells issued from them in such abundance, as to render it necessary to wash the specimens thoroughly, to remove the fragments of tubes and the cells, which perfectly obscured the field.

REMARKS. This case affords an illustration of the insidious manner in which even an acute deposit of tubercles may take place in the lungs, in consequence of the entire absence of reaction in the organs thus affected. Constitutional symptoms were present, in the form of persistent feverish irritation, and enabled the commencement of the morbid process to be indicated seven weeks before the patient's entrance into the hospital; but neither in the history of the case, nor during the period she was under observation, were there any local symptoms to direct attention to the chest; and, after death, the bronchial tubes were found nearly free from congestion, and from mucous secretion. It is not improbable that the tubercular cachexia was brought into activity by the fright which produced such remarkable effects at the time, and left so evident and permanent a change in the patient's health subsequently.

The symptoms observed whilst the patient was in the hospital indicate that her death was occasioned by a specific fever. The high delirium, rapid pulse, and marked tendency to sinking, pointed to this conclusion; and, a fortnight before her admission, her symptoms underwent a change; and delirium made its appearance in the second week.

Two cases have occurred to Dr. Russell, of equally insidious

deposit of tubercle. In both, the lungs were in the same condition as in the case under consideration. In one, the chest was repeatedly examined by a very able and experienced surgeon, as well as by himself, without the discovery of a single sign to indicate disease in the lungs. The only symptom was a state of low fever, protracted through seven or eight weeks. The second case occurred under similar circumstances, and was of five weeks duration. Both occurred in young children.

ST. GEORGE'S HOSPITAL.

ANEURISM OF THE AORTA.

Under the care of H. Bence Jones, M.D.

Eliza S., aged 37, a married woman, was admitted under the care of Dr. Bence Jones on May 18th, on account of a very large pulsating tumour of the chest, which had made its appearance about last Christmas. It seemed that it had commenced above the left breast; but, on her admission, it had extended across the median line, and presented a very singular appearance. There was an enormous aneurismal tumour, almost as large as her head, reaching from the level of the larynx to the upper part of the chest, more to the left side than the right, covering both clavicles, and pulsating violently, so as to shake the entire trunk. The pulse could not be felt in the right radial artery, although in the right carotid and facial artery it could be felt. The sterno-mastoid on each side was tightly stretched over the tumour—more so on the left side than the right. She suffered from dyspnœa to such an extent that she could not swallow solids; and there were also some dyspnœa and cough, with expectoration of a tenacious mucus. The enormous pulsating tumour, however, on the chest, prevented any satisfactory stethoscopical examination; the *bruit* being excessively loud. The pulse in the left wrist was felt; it was weak, and 132 in the minute. The *bruit* was not heard behind.

It is unnecessary to go further into the history of the case than to say that the dyspnœa rapidly increased, and that she died of it five days after her admission into the hospital. The nurse observed that the pulsation in the tumour continued for some time (she said five minutes), after the breathing had ceased, and the patient appeared to be dead.

The *post mortem* examination was made thirteen hours after death. The body was found to be much emaciated. The tumour had fallen in very much since her death, and was quite flaccid; it covered the inner part of both clavicles; had eroded the sternum to a great extent, and lifted up the two upper ribs on both sides. On the right side, the second rib had been broken across about two inches from its cartilage; and the inner fragment, displaced by the muscles, was found sticking vertically upwards. This bony prominence had been noticed during life. The pectoral and sterno-mastoid muscles, which were stretched across the tumour, were greatly wasted. The tumour was formed by a large aneurism, which communicated with the ascending aorta by an opening of about the size of a half-crown, an inch above the valves on the anterior part of the vessel, perfectly smooth, with rounded edges. This led into a very large sac, of the size of a child's head, which was filled principally with fluid blood and coagulum formed after death. The outer part was lined with a thin layer of laminated coagulum. In front of the sternum the proper sac seemed to cease; and here the sac was formed only by the muscles and condensed cellular tissue. The aneurism had not given way in any part. The trachea and œsophagus lay behind it, and from the upper part of the arch four vessels were given off. The first was the right carotid, which passed off undivided, but otherwise presented no peculiarity. The second was the left carotid, which seemed to come off lower down than usual, and lay at its commencement more behind the trachea than natural. The third branch was the right subclavian, which passed quite behind the œsophagus, between it and the spine, close to a point where the fourth and fifth dorsal vertebræ had suffered from pressure, and were deeply eroded. Hence it was concluded that the artery had also been compressed by the tumour. The last vessel given off from the arch was the left subclavian. The left lung was consolidated throughout, every part sinking in water. The bronchial tubes were much enlarged, and the parenchyma loaded with numerous very small white granules, rather resembling miliary tubercles. The heart was healthy. The root of the aorta, up to the opening of the aneurism, was very atheromatous; but the continuation of that vessel and the iliac arteries were healthy.

Remarks. The peculiarity in this case, in the symptoms observed during life, was, that a tumour originating in the left side of the body, and situated principally on that side, should have compressed the subclavian artery to such an extent as to stop the pulse entirely, without similarly affecting the carotid—a circumstance hardly possible in the ordinary arrangement of the vessels, when any pressure exercised upon either of these arteries must have acted on them entirely or principally through the innominate. The anatomical peculiarity, however, discovered after death, fully accounted for this symptom, inasmuch as it showed that the right subclavian, in its unusual course, was exactly in the situation where the pressure was greatest. The peculiarity is a rare one, but is noticed in all our text-books of anatomy (*vide* Quain's *Anatomy*, vol. i, p. 500, edit. 1848). It is also noticed by anatomical writers on this head, that in such cases of anomalous origin of the branches of the aorta, they are frequently placed lower down on the artery than usual; and that the right subclavian may even arise as low down as the fourth dorsal vertebra.

In other respects, the case is interesting as an example of the enormous size to which such a tumour may grow in a very short space of time, and of a termination to the case which our experience would lead us to regard as not a very uncommon one; viz., by pulmonary inflammation, occasioned by the irritation of the tumour.

Original Communications.

IDIOSYNCRASIES.

By T. W. Nunn, Esq., Assistant-Surgeon to the Middlesex Hospital.

Instances of the poisonous effects, on certain constitutions, of drugs ordinarily of moderate action, are not unfamiliar in medical practice. Ipecacuanha is perhaps one of the best examples of a drug that, even in a state of the minutest subdivision, is capable of producing, idiosyncratically, extreme results. But some articles of diet also are, to individuals, poisonous: a numerous class of persons might be easily found, the members of which could not take, without inconvenience, one or other of the various alimentary substances. There are, doubtless, scattered over the field of unrecorded medical experience, very many interesting and curious examples of this idiosyncratic incompatibility or susceptibility. The production of spasmodic asthma seems to be the most frequent symptom of idiosyncratic poisoning. Irritation of the mucous and cutaneous surfaces is also a common one; direct influence of a severe character on the nervous system, a rare one.

The object of this communication is, however, not to discuss the physiological questions which naturally arise in the consideration of such a subject: it is rather to offer an instalment of facts. I am the less willing to submit any theory on such a purely medical subject, since I have perceived that Dr. Hyde Salter (from whose able pen much information may be expected), in his paper on the Varieties of Asthma (*Edinburgh Medical Journal*, May 1859), promises to enter fully into the subjects of hay asthma and asthma from animal emanations.

Case i. *Poisoning by Rice.* J. M., an occasional patient, cannot eat rice in any shape without extreme distress. From the description given of his symptoms, I believe spasmodic asthma to be the cause of his discomfort. On one occasion, when at a dinner party, he felt the symptoms of rice-poisoning come on, and was, as usual, obliged to retire from the table, although he had not partaken of any dish ostensibly containing rice. It appeared, on investigation, that some white soup, with which he had commenced his dinner, had been thickened with ground rice.

Case ii. *Rice-Poisoning.* A gentleman who, as in the preceding case, could not eat rice "without being suffocated", took luncheon with a friend in chambers. The fare was simple—bread, cheese, and *bottled* beer. On the usual symptoms of rice-poisoning seizing him, he informed his friend of his peculiarity of constitution. The symptoms were explained by the circumstance of a few grains of rice having been put into each bottle of beer, for the purpose of exciting a secondary fermentation.

CASE III. A gentleman, some time since under my treatment for stricture, informed me that he could not eat figs without experiencing a most unpleasant formication of the palate and fauces; and that the fine dust from split peas produced the same sensation, accompanied by a running at the nose. The father of this gentleman suffers from hay-fever at certain seasons.

CASE IV. Mr. P., himself a gentleman of a peculiarly nervous temperament, states that his father cannot endure the sensation produced by handling a russet apple. He also communicated to me

CASE V—that of Mr. T., who cannot remain in a room in which there is a cooked hare, on account of the peculiar effect produced on his system.

CASE VI. Miss ——, after eating egg, suffers from swelling of the tongue and throat, accompanied by "alarming illness".

CASE VII. Miss ——. In this case, somewhat similar effects follow the taking of honey of any kind, and especially honey-comb, into the stomach; viz., swelling of the tongue, frothing of the mouth, and blueness of the fingers.

CASE VIII. The following is an extract from a note received by me from a lady, who says:—"I had on three mustard plaisters—one on the throat, one on the back of the neck, and another under the left shoulder. They remained on half an hour. Cotton wool was applied on their removal. About thirty hours afterwards, a painful stinging sensation commenced in the back of the neck, followed by violent twitching of the muscles of the face, arms, and legs, which continued in regular succession through the whole night. It yielded, after about twelve hours, to hot fomentations of poppy-heads applied to the back of the neck." It cannot be ascertained that any medicine containing strychnia was taken.

CASE IX. A gentleman, a member of the medical profession, with whom I am well acquainted, suffers from nettle-rash after eating veal. Veal has the reputation of being particularly indigestible. The above instance of the production of urticaria from its use is, doubtless, not an uncommon one.

CASE X. I have been informed of a lady who cannot remain in a room in which there is a cat. Although the cat may be concealed, the lady's peculiar sensations immediately declare to her the presence of the animal.

CASE XI. A patient under my care, since dead of cancer, was invariably thrown into a state of nervous excitement by the exhibition of the compound infusion of orange-peel.

CASE XII. A personal friend of my own suffered from erythema nodosum after eating shrimps, although these were perfectly fresh. I believe shell-fish generally is particularly liable to excite unpleasant consequences.

It would be useful, I venture to suggest, if other members of the Association would contribute any instances of idiosyncratic poisoning they may know; since, from a multiplicity of exceptions, some general rule may be educed.

8, Stratford Place, W., June 1859.

ON THE INFLUENCE OF VITALITY UPON THE EXCRETIONS.

By T. INMAN, M.D., Liverpool.

IN a recent number, I ventured to call the attention of the profession to the influence which a debilitated condition of the system had upon secretion generally. I wish now to call attention to the influence the same cause has upon the secreted matters themselves; or, as they are sometimes designated, the excretions.

All of us are more or less familiar with the fact that the excretions do not decompose, as a general rule, while they are in the body. The fæces, retained though they be sometimes for days, and in some rare cases for weeks and months, in the colon or the rectum, do not decompose there, as they do when they are expelled from the body; and this observation holds good, even though the bowels are distended with flatus, and the fæcal matter is in contact with a gas differing in no degree from common atmospheric air. The urine, when retained in the bladder, becomes denser, and undergoes some change; but it does not decompose in the same manner in the interior of the body as it does when expelled therefrom, and kept in a close well stoppered bottle. We account for this by saying that the excreta have a certain vital power as long as they remain in the body, which enables them to resist the ordinary laws governing the inorganic world.

But we know from experience that the vital power does not immediately leave a limb after it has been amputated; and it becomes, therefore, a question whether vitality may not also remain in excretions for some time after their expulsion from the body. In other words, do the excretions lose their vitality as soon as they are expelled? or is there a period during which they successfully resist chemical laws? And, if such period exist, is it definite for all? Do the excretions of some decompose, *cæteris paribus*, sooner than those of others? and, if so, can we associate that phenomenon in any way with the condition of the individual at the time?

My attention was first called to this subject in the following manner. When M. Ledoyen came to Liverpool, about twelve years ago, to demonstrate the deodorising power of his "disinfectant" fluid, with other experiments, the following was made. The alvine dejections of a certain number of patients, ill with fever and various other diseases, were all placed side by side, to the number of thirty or more, in a small room attached to the pauper hospital. They remained all night in the chamber, and the next day M. Ledoyen commenced operations. After demonstrating the general advantages of his compound, he proceeded to sprinkle a few drops of his diluted mixture into each utensil. The amount used was the same in each case; but the appearance produced varied immensely; and, according as the chemical change was excessive or otherwise, he judged of the condition of the individuals who had passed the "motions". "This patient", he would say, "is not very bad; that one is seriously ill; this one is dying; this one is nearly dead;" etc. As his observations were correct, he was asked how he judged of the danger the patient was in? His reply was, "that he had found, in the course of his experiments, that fæces decomposed rapidly or otherwise, according to the debility of the individual passing them."

For a long period, the principle here enunciated seemed to belong to the class of interesting but useless facts. More recent observations have, however, shown that it may be turned to good practical account.

If any one will diligently consult the napkins used by infants, he will find that, during the time the motions are of a good healthy yellow colour, they have a peculiar odour, which they retain for twelve hours at least; but if, from any cause—*e.g.*, debility in the nurse, or inappropriateness of the food—the child loses its healthy condition, the motions not only change in colour and consistence, but in smell, and decompose in a very short time after being passed. Where there is diarrhœa and excessive depression of the vital powers, the motions are often found to be decomposed in a few minutes. We may notice, too, that a similar result is met with at the same time in the other secretions of the child; and that the urine decomposes quickly, and the breath is foul or sickly.

But it is not in children alone that this change may be detected: it is equally evident in adults. If, for example, the doctor is called to attend a case of diarrhœa, where there is always more or less debility present, he may consider it necessary to inspect all the alvine discharges that take place. His visits are at intervals of twelve hours only; and he has on each occasion placed before him perhaps as many as six motions in different utensils. He is probably struck with the different odour exhaled from the various specimens, and notices a difference in the colour; but a few words from the nurse soon explain the mystery. The dark brown stinking ones are those passed the longest period ago; the healthy looking and smelling ones are those passed only a short time before the doctor's visit.

Simple though this fact seems to be, it is one which is not universally acknowledged and acted on; I have known "motions" which have simply become decomposed taken for "foul secretions", and the patient dosed with mercurials, under the impression that they would improve the condition of the bowels. The result has been what might have been anticipated; the patient has got weaker, and the bowels no better. The following case came under my notice some time ago. It is valuable as illustrating the danger resulting from inattention to these points.

An elderly gentleman was under treatment for indigestion. He was improving upon a tonic plan of treatment, when he was induced by his friends to have "a second opinion". When the physician called, he was shown a motion which had been passed twelve hours before. It had undergone decomposition, and was pronounced to be extremely "vitiated"; and, with the intention of improving the secretion, a mercurial alterative was prescribed. This acted freely; and when the visit was made the next day, the motions were all inspected, and as that

passed the last seemed to be the most healthy, the natural conclusion was that the medicine had done good. It was therefore persevered with; on the next occasion, and for some time subsequently, only the last motion passed was inspected, and, as it had not had time to be decomposed, it was thought to be healthy, and the patient was supposed to be "better", as his secretions were no longer "vitiated". But, notwithstanding this opinion, it was clear to the first attendant that the man was getting more feeble and debilitated day by day. If the medicine did improve the secretions, it certainly impaired the strength. It was then doubted whether the first inference was correct; and, to decide this, the nurse was directed to save all the "motions", and arrange them in the order in which they were passed. When they were inspected, the same order of things was noted as at the first examination; but the older ones appeared more vitiated than ever, and the most recent ones had begun to change in colour. It was interesting to know how the same fact struck the two doctors. One remarked, "that with such excretions, there was greater necessity for an alterative than ever"; the other said, "that seeing such had been the effect of the alteratives which the patient had already taken, the sooner they were suspended the better." This led to a warm debate, which was ultimately decided by an appeal to the nurse. Thus: "Nurse, which is the last motion passed?" "This" (the healthy looking one). "How long has it been passed?" "An hour." "What was the appearance of the other motions when they were passed?" "They looked precisely the same as the one first referred to." "Then they have all changed in appearance since they were placed here?" "Yes." "Do the motions change in appearance now more rapidly than they used to do?" "Yes." This confirmed the idea that the "vitiated character of the excretions" was, so to speak, a *post mortem* appearance, and simply indicated a smaller amount of vital force (as opposed to chemical) than is usually possessed by vital products when separated from the body. The termination of the case showed the justice of this view, for the patient's strength continued to diminish, and he died shortly afterwards of pure debility and exhaustion. It is useless to speculate upon what might have been the result had the phenomena been read correctly from the first.

As decomposition takes place in the alvine secretions very rapidly in fevers and all diseases marked by great debility, the practitioner must ever have his attention alive to the fact, that what he calls "vitiation" may be more apparent than real, and a sign which calls for stimulants and strengthening remedies rather than mercurial alterative medicines, whose invariable effect is to make a weak patient weaker.

The excretions of the body being comparatively few, and for other reasons, we cannot prosecute our inquiries into the influence of vitality upon them in the same way as we did concerning the function of secretion. We are not in the habit of requesting our patients to retain their saliva, their tears, their leucorrhœal or catamenial secretions, etc., for our inspection; consequently we know little about the phenomena of decomposition in these fluids and the changes effected thereby.

There are, however, two other excretions with which we are tolerably familiar; namely, the breath and the urine, respecting which we may say a few words. As a general rule, we know that the breath of healthy children is free from any odour perceptible to our senses; and we may say the same of that of healthy adults. But as soon as a child begins to suffer from debility, we know that we can recognise in its breath a variety of unpleasant smells, which we designate as sour, sickly, or putrescent. These odours are increased in intensity and duration by every cause which tends to augment the existing debility; and they go away as soon as the health is restored. In adults, the influence of debility in producing "foul breath" is very remarkable. I know individuals in whom it is invariably produced by a day's fatigue, by the occurrence of the catamenia, or by the too prodigal use of aperient medicines. In these instances, it is cured by wine, tonics, and rest, as certainly as diarrhœa is checked by opium, etc. In other, it comes on in consequence of indulgence in such passions as anger, or from excessive fear, anxiety, and disappointment. In others, it precedes and accompanies asthenic indigestion, and in them a debauch is as surely followed by foul breath, as it is followed in others by nausea and headache. Of course, it may be argued that this foul breath is not due to decomposition of the expired air after it leaves the lungs, but simply to the exhalation of "crudities" already existing in the blood. I acknowledge the force of the argument; but it matters little which solution we accept, so long as we recognise in such phenomena the presence of impaired vital force, and the necessity that exists for adjusting the work to be done to the constitutional power to do it.

There can be no such difficulty respecting the urine. Under ordinary circumstances, this excretion continues for about four and twenty hours, without undergoing any perceptible decomposition; but when the individual passing it is weak, decomposition takes place with a rapidity varying according to the amount of debility present; nay, we may go further, and say that in some instances—as in paraplegia, where the vitality of the kidneys and bladder is very low—the urine is actually decomposed ere it leaves the body. The decomposition is recognised in a variety of ways: by the smell, by the occurrence of vegetable growths, vibriones, torulæ, etc.; by the abundant formation of ammoniacal salts; by turbidity, etc.

It is scarcely necessary to remark that we are fully alive to the fact that atmospheric conditions have a great influence in promoting the rapid decomposition both of urine and fæcal matter. What we want to call attention to is, that if on a cool day and in a cool room the urine of a patient shows evidence of decomposition in twelve hours, it is evidence of a debilitated condition of the bladder, the kidney, or the system generally. As such conclusion seems very dull and meagre however, when thus announced, we will endeavour to point it by recording the case which determined the writing of this communication.

A medical friend sent me a bottle of urine, with the laconic request that I would give my opinion upon it, and my views of the treatment to be recommended. The sole information he imparted to me was, that it was passed that morning by a boy about ten years old. After allowing the fluid to stand for some hours, it was examined microscopically and by simple chemical tests, etc., but nothing wrong could be found with it, except that it had begun to decompose. The first impulse was simply to communicate that fact to my friend, and leave him to draw his own inference; but as it would be an useful mental exercitation to put down the conclusions which might be drawn from that fact alone, I resolved to give an account of the symptoms that I thought the case would present.

The following was the train of argument. As there is an absence of much vesical mucus, triple phosphates, etc., there is presumptive evidence against the idea of vesical or renal disease. There is then general debility; and the presumption is that there will be debility in all the organs of the body, and consequent disorder of function. The signs by which deficient vital power in the brain and nervous system, in the respiratory, digestive, cardiac, and other sets of organs, might generally manifest itself, were then mentioned; and the note ended by recommending a strengthening plan of treatment. In reply to this communication, my friend reported that not only were the symptoms correctly described, but that some had been mentioned in the note which had not been recognised before its receipt. The plan suggested tallied entirely with his own views, and he felt his hands proportionally strengthened thereby.

The practical conclusion to be drawn from the foregoing observations is obvious. If the physician finds that the excretions of any of his patients decompose more rapidly than they would do during health (under the same external circumstances of light, air, and heat), he may feel certain that the vital powers are seriously impaired; and if under the treatment he adopts the decomposition occurs at an earlier period than it did before, there is reason to inquire whether such phenomenon is due to the augmentation of the disease itself or to the medicines administered for its cure. It will then be a subject for consideration, whether the plan of treatment is to be further developed in the same direction as before, or to be fundamentally changed.

Nor is this a matter of so slight importance as it might at first sight appear. Many seem to think that it is the simplest matter in the world to enable a patient to regain strength; and, consequently, they care little about employing medicines which, while they reduce the powers generally, seem to have some special influence over particular organs. But it is by no means an easy matter to enable a patient to regain health; and any one who systematically endeavours to do so, will have to acknowledge that it is one of the most difficult problems in medicine. It is easy to reduce the strength, for that we have a host of drugs; but directly to increase it, we have literally none.

"Facilis descensus.....
Sed revocare gradum.....
Hic labor hoc opus est."

Gulstonian Lectures
ON
FEVER AND INFLAMMATION.

DELIVERED BEFORE THE
ROYAL COLLEGE OF PHYSICIANS, LONDON,
1859.

By WILLIAM ADDISON, M.D., F.R.S., Fellow of the College.

LECTURE III (*concluded*).

XVII.—CRISIS, PROTRACTION, AND RELAPSE: FEVER.

THERE are no diseases in which the transition from unfavourable to favourable symptoms is more marked than in primary contagious fevers. Thus, in typhus, in the great majority of those who recover, the turn in favour of the patient is determined within a period of twenty-four hours. In our exposition of fever, we have treated the corpuscles of the blood as living bodies. And in all phenomena depending on the actions of living bodies there are epochs or periods; there is a time of germination, maturity, and decline. And symptoms of fever, because they are based upon an independent action or metamorphosis of the blood-corpuscles, have also their analogous epochs.

When the fluid of the blood is disordered short of affecting the corpuscles, and some form of inflammation arises for its depuration, there is but one preternatural depurative reaction: namely, that of the fluid upon the common tissue, denoted by the inflammation. But in fever there are two preternatural reactions: one, and the first, that of the corpuscles, whereby they extricate themselves from a virus; or, in other words, excrete a poison, and transfer it to the fluid in which they swim: the other, and subsequent one, that of the fluid whereby the virus is handed over to the common tissue for expulsion by some form of inflammation. In both kinds of inflammation, namely, those without fever, and those consequent on fever, the inflammation has reference, not to the state of the corpuscles, but to the state of the fluid of the blood.

The crisis, or maturity and termination of fever, then, depends on two events, both of them vital actions: *first*, the discharge of the virus from the corpuscles; and *secondly*, its discharge from the plasma. If there be obstacles to the discharge of the virus from the corpuscles, symptoms of fever will be protracted; should there be hindrances to its discharge from the plasma, forms of inflammation will be protracted.

If the corpuscles have freed themselves from the virus, but there are hindrances to its discharge from the plasma, then the imperfectly depurated fluid may react upon the convalescing corpuscles, and symptoms of fever be renewed. And the more probable will be this renewal, or relapse, where inflammation is acting the part of a depurative organ. But let it be observed in the circumstances presumed, the fever into which the patient relapses has a different *condition précédente* from the fever with which he was first attacked. The first fever has an aërial origin, the second, or prolonged fever, is due to imperfect depuration of the plasma. Let us examine this point in more detail.

When causes of hardship and sickness abound in the mixed population of a crowded city, complex forms of illness must often occur. These it is very difficult to unravel, because the persons are not, or have not been, continuously under medical observation. We therefore again refer to the crew of a ship, where, from the inmates being seen daily, and from other circumstances, the sequence of events can be better followed.

Formerly, in long voyages, it has not unfrequently happened that a salt diet, bad water, and confinement on board the ship, have produced in the men that state of blood which founds, upon the slightest local provocation, chronic ulcerations on the exterior of the body. Also, in addition to the exterior ulcerations, various forms of bowel complaint, diarrhœa, and chronic dysentery, have been present. With the crew in these conditions, the ship has sailed into an unhealthy port, and some of the men have taken fever from the poisonous atmosphere of the shore. Here fever has arisen from the aërial source; but the symptoms, history, and termination of the fever will vary greatly in the different men; because the anatomical conditions in which they severally are when they enter upon fever are different. And when the aërial fever has run its course, or when its proper epoch of termination has arrived, we have seen men linger in fever, or seem to fall back—relapse—into fever. The reason is because the latent anatomical lesions, present before the aërial fever set in, have now, from the commotion of that fever, themselves become influential by giving indraught to morbid matter into the blood; in creating, not a continuation of the aërial fever, but another—the typhoid pyrexia, or fever. In such cases the patient no doubt relapses into fever; but he does not relapse into the same fever; it is into another and a different one.

"During seven months in 1831, eleven hundred and forty-five cases of fever were treated by me," says Dr. Perry, "to a termination. Of this number there were nineteen relapses, averaging one in sixty; and I was particularly struck with the fact that these relapses, almost altogether occurred in patients who had been admitted in hospital on account of some local inflammatory affection; and who had caught fever in the house, or who were seized with it shortly after leaving the house. The incorrectness of calling *these* cases of relapse, is quite manifest, as it was an entirely new disease. It is as absurd to talk of a relapse of typhus fever as to talk of a relapse of small-pox, scarlet fever, or measles. When an increase of fever takes place after the crisis of typhus, it is owing to some other disease."

Renewed accessions of fever after the crisis of typhus are regarded by Dr. Perry, and we think correctly, as analogous to renewed accessions of fever, after the crisis of scarlet fever, from disease of the kidneys, or from anatomical lesion in any other important organ. And generally, respecting the contagious fevers—scarlet fever, measles, small-pox, and typhus—it may be concluded of persons lingering in fever much beyond the natural periods of these fevers, that the fever of the latter part of the period is not the fever of the first part of it. It is thus, we apprehend, that persons are not unfrequently said to have scarlet fever and typhus. That is to say, more correctly, the typhoid pyrexia, from some anatomical lesion giving inlet to morbid matter to the blood, may follow close upon the primary fever. And it is not difficult to understand that an aërial fever may, through anatomical lesions occasioned by that fever, *glide* into typhoid fever without any interval by which the term relapse is made appropriate.

Thus fevers may interchange, or the one may be supplanted by the other. For persons may be approaching, or have just entered the state of typhoid fever, when an aërial poison introduces and substitutes the dominating typhus. On the other hand, persons recovering from the aërial fever, typhus or scarlet fever, may, through anatomical lesions, lapse into typhoid fever; but for fevers thus to glide, or relapse, into one another, the *conditions précédentes* of both fevers must have been present.

"Great numbers of the sick," says Dr. Bryce, "admitted into hospital with scurvy, dysentery, and diarrhœa, were approaching, or had already symptoms of typhoid fever; when, upon being crowded together with others suffering from the true contagious typhus, that disease dominated all the rest." Our interpretation of the fact noticed by Dr. Bryce, is that irritation, or disorder of the corpuscles of the blood—denoted by symptoms of fever—arises from debasement of the plasma; but that, when an aëriform poison of specific qualities reaches them, in their passage through the lungs, a contagious abnormal metamorphosis of the corpuscles is substituted in place of simple irritation. Also, in contagious fever, when the abnormal metamorphosis of the corpuscles has run its course, irritation of the corpuscles may continue, if anatomical lesions, giving inlet to morbid matter, remain.

Hectic and typhoid fevers are, then, both of the reactionary class; for both arise from debasement of the plasma through absorption of morbid matter from anatomical lesions. But the site of the lesion and the quality of the matter absorbed, occasion important differences in the history and symptoms of the two fevers. Then, again, of the two fevers in puerperal women, the one is a reactionary or plasma fever; the other is a primary or specific fever.

It results then, that anatomical lesions, giving inlet to morbid matter to the blood exist prior to the appearance of the typhoid pyrexia, or typhoid fever; the quality of the matter absorbed distinguishing this pyrexia from hectic fever. Contagious typhus belongs to a different class of fevers. Nevertheless, the typhoid pyrexia may introduce the poison of typhus. The order of events then may be as follows:—Hardships in diet diarrhœa, the anatomical lesions of diarrhœa giving inlet t, morbid matter to the blood, typhoid pyrexia, typhoid pyrexio generating the virus of a primary fever. On the other hands

the order may be:—Aërial miasms, primary contagious fever, an anatomical lesion occasioned by that fever giving inlet to morbid matter to the blood, typhoid pyrexia.

We here give a tabulated view of these results, with the following explanation:—

Primary and generally aërial.	Specific and infectious.	Small-pox, scarlet fever, measles, typhus, etc.	Corpuscles of the blood diseased *before* distemperature of the plasma.
Reactionary or plasma fevers.	Hectic and non-infectious.	From diseased joints or bones, pulmonary consumption, and other chronic anatomical lesions, with bland discharges.	Corpuscles of the blood disordered or diseased in *consequence* of debasement of the plasma.
	Typhoid and mixed.	From anatomical lesions of the mucous membrane of the bowel; of the puerperal womb; from surgical wounds and other anatomical lesions, with fœtid and ichorous discharges.	

In this table, the first column exhibits two classes of fever: and the last column shews how we consider them dependent upon the physical constitution of the blood, and upon properties usually assigned by physiologists to the corpuscles.

Injurious substances dissolved in the air and inhaled by the lungs, and specific poisons introduced in very small quantity into the blood, produce infectious or *contagious fevers*. A contagious virus is generated in the blood; and forms of inflammation follow upon the fever. The examples in this country are small-pox, scarlet fever, measles, and typhus. In these fevers, it is the *quality* and not the *quantity* of the poison which is operative. For the quantity, as in the inoculated poisons, may be *exceedingly small;* but its effects are great, by reason of some independent action excited by it in the blood itself. This independent action, which extends through the whole mass of the blood, is, we say, the result of a contagion, contact-action, or fermentation amongst the blood-corpuscles; an *abnormal metamorphosis* which issues in the generation of a contagious virus. And the phenomena, because dependent on the vital action of cellular bodies—the blood-corpuscles—have therefore *a crisis*, a more or less decided or marked epoch of rise, maturity, and decline. The rise, crisis, and decline of contagious fevers corroborates the conclusion which bases phenomena of fever upon the vital actions of cellular bodies.

Spoiled materials constantly ebbing back into the plasma from chronic anatomical lesions with *bland discharges*—such as diseased joints, protracted suppurations, pulmonary consumption, etc.—distemper the fluid of the blood; and reiterated or deuteropathic distemperature of the fluid disorders the corpuscles and produces *hectic fevers*. In these fevers, there is no evidence of that kind of independent action in the blood which issues in the generation of a contagious virus. They are non-infectious; therefore there is an absence of proof of any specific quality in the matter introduced into the blood. Hectic fevers, moreover, have no marked epochs of maturity and decline; and that the symptoms of fever depend upon the constancy and reiteration of the spoiled material seems proved; because they continue whilst the source of absorption continues, but disappear when it is removed, as it often can be, by amputation or by some other surgical operation. Hectic fever, then, depends on the permanence of the source of spoiled material; on a continuousness of absorption which debases the fluid, and, through the fluid, the corpuscles of the blood. Symptoms of fever follow from their disorder; but this disorder—if we may so speak—is one of constant fretting and irritation, from the constancy of the ebbing back of spoiled matter into the plasma. There is no independent action in the blood, such as issues in the generation of a contagious virus. Pathogenetical substances, then, introduced into the blood, occasion fever; by their quality, when a very small amount excites an independent action in the blood-corpuscles, which has its rise, maturity, and decline, and issues in the generation of an infectious virus; by quantity and reiteration, when continuousness of introduction occasions constancy of irritation amongst the corpuscles, denoted by hectic and non-infectious forms of fever, which decline and disappear when the source of morbid absorption is removed.

Interposed, as it were, between these two fevers—contagious and hectic—are *typhoid fevers*, or *typhoid pyrexiæ*. These sometimes have the characters of the contagious, sometimes of hectic fever; because the forms and symptoms which these typhoid fevers may assume are determined sometimes by the quality, and sometimes by the constancy or reiteration of the morbid matter. In proportion as the quality is more offensive or specific—as when the source of absorption is hospital gangrene, ulceration of the mucous coat of the bowel, a surgical wound with an ichorous discharge, or the puerperal womb—the fever approaches in all its phenomena to the contagious forms of fever. On the other hand, the more the symptoms of fever depend upon reiteration of the morbid matter, as when the source of absorption is an anatomical lesion with a more bland discharge, then the more the phenomena observed in the patient approach to those of hectic fever.

There is no arbitrary assumption here, in arguing differences in the symptoms and phenomena of reactionary fevers from differences in the quality of the matter absorbed into the plasma of the blood from different conditions of anatomical lesions, or different states of ulceration. The fact of difference of quality in the matters discharged is demonstrated in surgical ulcers, some of which discharge a bland and laudable pus, others a thin, irritative, and fœtid ichor. Nay, the same anatomical lesion or ulceration will differ in the quality of the matter discharged—and therefore in the quality of the matter which may be absorbed—on two consecutive days. It results, then, that if the corpuscles of the blood take on a general and independent action from a poison which may come into contact with only a few of them, an infectious or contagious virus is generated in the blood, and infectious or *contagious forms of fever* appear: whereas, if the corpuscles of blood suffer only constant irritation or fretting from the continuousness of the presence of an irritating matter in the plasma, a contagious virus is not generated, but *non-infectious* or *hectic* forms of fever arise. The contagious or primary, and the reactionary or hectic, are the two classes of fever which we conclude to be dependent upon the physical constitution of the blood. In the one class, the corpuscles are disordered, irrespectively of the fluid in which they swim. In the other class, debasement of the fluid is antecedent to disorder in the corpuscles. But the two parts of the blood are much too closely associated with each other, for impairment of the quality of one part to continue without impairment of the qualities of the other part. Therefore fever of the one class may glide or relapse into fever of the other class. And it would seem, from the physiology of the corpuscles, that contagious fevers from aërial poisons must relapse into fever from debasement of the plasma, were it not so ordered that forms of inflammation perform the office of a depurating organ. The corpuscles of the blood generate the contagious virus, and they transfer it to the plasma; and should the specific form of inflammation characterising the fever fail of fixing it in the common tissue, symptoms of fever are renewed.

The same poisonous atmosphere may be breathed for the same time by a number of persons, and it will produce fever only in a few of them; because the corpuscles of the blood have different degrees of resistance in different persons. A poison in the atmosphere is a *condition précédente*; it is not the logical *antecedent* of contagious fever. Some physiological element of the body must be disturbed, or must be interposed between the aërial poison and symptoms of fever. This physiological element we have concluded to be the corpuscles of the blood.

In like manner, it is not every distemperature of the fluid of the blood that occasions hectic fever. On the contrary, the first effect of simple distemperature of the fluid of the blood is to occasion new, or to aggravate existing forms of inflammation. It is only when the cause of the dyscrasy of the fluid is permanent and has overcome the resistance of the corpuscles, that symptoms of hectic fever appear. Anatomical lesions (ulceration and suppuration) have therefore only the same relation to hectic fever, that poisons in the air have to contagious fever. They are *conditions précédentes*, and not the antecedents of the fever. Extensive ulcerations and suppurations exist without hectic fever, because the anatomical lesions must have become continuous inlets of spoiled material to the blood, and

the fluid of the blood must be thereby continuously debased before symptoms of hectic fever appear.

It has not unfrequently happened that persons in dissecting the dead body or in necroscopic inspections have pricked their finger; of such many escape without inconvenience, whilst another, more unfortunate, may be attacked with fever; and recover only after extensive inflammations and more than one large critical abscess. The reason is because the puncture, or anatomical lesion, is only a *condition précédente*. A contagious disorder amongst the blood-corpuscles is the proper antecedent of fever; and distemperature of the fluid of the blood is the proper antecedent of inflammation and critical discharge. Fever from the puncture, therefore, does not arise unless the blood-corpuscles be affected.

So, again, anatomical lesion, or follicular disease of the mucous membrane of the bowel, is a *condition précédente*, and not the *antecedent* of typhoid fever. A great number of persons may be suffering hardships, and may be afflicted with chronic dysentery and diarrhœa, or with follicular disease of the mucous membrane of the bowel; but only a very few of them may fall into typhoid fever; and these may not be those with the worst, or most extensive anatomical lesions. The reason is because the state of fever does not depend upon the anatomical lesions in the manner of an antecedent. Symptoms of fever make their appearance only when the lesions are giving inlet to morbid matter into the blood, which, either by quality, or frequency of iteration, disorders or irritates the blood-corpuscles.

It will be observed of this exposition that the *condition précédente* of fever, occasioned through miasms in the atmosphere, is external to, and apart from the body. A poison from the air affects the blood (the corpuscles) and fever is actually the first phenomenon of departure from health: whereas in reactionary fevers the *condition précédente* is within, or is a part of the body. Some anatomical lesion, and an irritative matter in the plasma, exist before, or are preliminary to symptoms of fever. A departure from the standard of health has therefore already occurred before; but, perhaps, without symptoms until the typhoid pyrexia appears.

In bringing our discourse upon a very difficult and interesting subject to an end, we have only in conclusion to observe that the doctrine of fever we have propounded is based on the physiological and physical constitution of the blood; on the known properties of cellular bodies; and on microscopical examinations of the state of the plasma and blood-vessels in the process of repair and inflammation. The chief points of the doctrine are:—

The fluid of the blood has a pathology distinct from that of the corpuscles.

Forms of inflammation, or of local poisoning without fever, make their appearance when there is dyscrasy of the fluid only: forms of fever when the corpuscles are disordered.

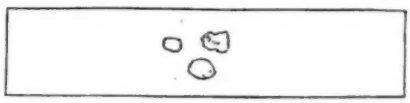
These points are submitted to your learned judgment and impartial criticism, as propositions; though, to our mind, they assume the aspect of truths, derived, as they are, from years of experiment and research upon the qualities of blood, and of the elements of repair and inflammation.

Upon the whole subject, the ideas we have endeavoured to express are, that numerous and various substances may circulate through the body dissolved in the fluid of the blood; and that the cellular elements of the body (including the corpuscles of the blood) have various affinities, and oppose various degrees of resistance to injurious matter. Therefore, if from distemperature of the fluid the common tissue be first disturbed, forms of inflammation first arise; if some local parenchyma be disturbed, the phenomena are those of local poisoning, delirium, coma, diuresis, purging, sweating, salivation, etc.; if the corpuscles of the blood be first disordered, fever is the result.

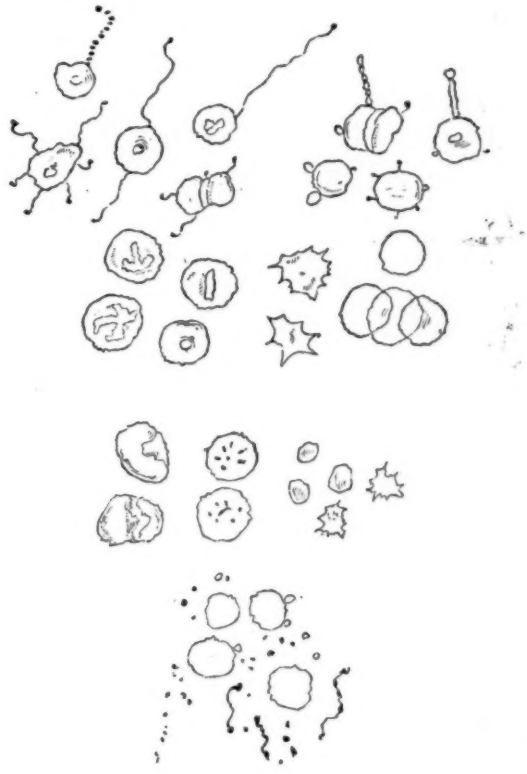
APPENDIX.

Experiment II, mentioned in our second lecture, refers to appearances of such a novel and remarkable kind, that we think the details, upon which success in repeating it depends, should be given:—

A glass tube, one-tenth of an inch in bore, drawn out to a point, is used for a pipette. Dissolve two grains of common salt and one grain of carbonate of soda in half an ounce of water. This forms a solution which may or not be used with sherry wine. Take a slip of glass, and receive on it a drop of fresh blood. Place, by means of the pipette, beside the blood, but not touching it, a drop of the saline solution and a drop of sherry wine, thus:—



Let fall a thin piece of glass upon the fluid and they will mingle in various proportions. A good eighth object glass is required; we use a middle eye-piece; and it is essential, to see the tails, etc., that the edge or circumference of the mixed fluids should be looked at, and not the middle of the mass. We have made the experiment, with and without the saline solution, numberless times; and though never failing to produce tailed forms in some part or other of the mixed fluids, still we find it impossible to foretell what set of appearances will prevail *within* the corpuscles. Some one or other of the following forms will, however, be seen. Half an hour or more should be given for the best effects.



The way in which the wine and the saline solution take off all disposition of the corpuscles to adhere in rolls; the various prickly appearances which some of them assume; and the innumerable very different markings seen in the interior of others, are scarcely of less interest than the tails. Opinions may vary as to the nature of the motions seen in the tails. If there be motion in the fluid, the tails are of course influenced by it; nevertheless, there is a constant wavy movement, which seems independent of all motion in the fluid.

Where the undiluted wine has acted upon the corpuscles, they are entirely deprived of their colouring matter, and a minute molecular matter floats in the surrounding fluid without molecular motion; but, where the wine is acting and producing tails, numerous and variously sized molecules are thrown off from the corpuscles; and these all have an intense molecular movement. The change which the fluid undergoes in consequence is well worthy of especial notice.

ROYAL COLLEGE OF SURGEONS OF IRELAND. At a meeting held on June 6th, the following officers were elected for the ensuing year: *President*, Christopher Fleming, M.D.; *Vice-President*, Robt. Adams, M.D.; *Secretary*, Edw. Hutton, M.D.

A Course of Lectures
ON
URINE, URINARY DEPOSITS, AND CALCULI.

DELIVERED AT THE PATHOLOGICAL LABORATORY, DURING THE SESSION 1857-58.

BY
LIONEL BEALE, M.B., F.R.S.,
PHYSICIAN TO KING'S COLLEGE HOSPITAL; PROFESSOR OF PHYSIOLOGY AND GENERAL AND MORBID ANATOMY IN KING'S COLLEGE, LONDON; ETC.

Lecture III.

Healthy Urine. III. Inorganic Constituents. *On the Salts generally; Changes effected in the Composition of the Salts by Incineration: Proportion of the Saline Matter in Urine: Phosphates; Common Phosphate of Soda; Alkaline Phosphate of Soda; Acid Phosphate of Soda; Phosphate of Soda and Ammonia; Phosphate of Magnesia; Phosphate of Ammonia and Magnesia; Phosphate of Lime; Estimation of the Alkaline and Earthy Phosphates; Quantity: Sulphates; Quantity; Estimation: Carbonates: Chloride of Sodium; Quantity; Detection; Circumstances affecting the Excretion of Chloride of Sodium: Bases in Urine: Soda and Potash: Lime: Magnesia: Iron: Silica: Alumina: Systematic Quantitative and Qualitative Examination of the Saline Matter of Healthy Urine.*

III.—Inorganic Constituents of Healthy Urine.

The saline or inorganic constituents of healthy urine are composed of those substances which remain after the solid matter has been exposed to a red heat, and the carbon burnt off so as to leave a pure white ash. If a little of the solid matter be placed in a platinum capsule, or upon a piece of platinum foil, which should be very large in proportion to the quantity of solid matter operated on, and exposed to the red heat of a spirit or gas lamp, it will melt and boil, giving rise to the evolution of offensive gases, which result from the decomposition of the organic constituents of the urine. When this has ceased, a charred mass, consisting of carbon and the indestructible saline matters of the urine, remains. After this black spongy mass has been kept in the open capsule, at a dull red heat, for a few hours, the carbon will gradually disappear, in consequence of the action of the oxygen of the air, which at this temperature combines with it, and forms carbonic acid. A pure white ash, which has an alkaline reaction, alone remains; and this consists entirely of saline or inorganic material, which is indestructible at a red heat.

Changes effected in the Composition of the Salts by Incineration. Now, it must not be concluded that the salts which we find in the ash existed in precisely the same state in the urine previous to incineration; for we know that many of these salts, when heated together, undergo mutual decomposition. Some of them may even be volatilised, if kept for a considerable time at a red heat. A mixture of carbonate of soda and chloride of ammonium becomes decomposed at a red heat. Chloride of sodium remains behind, while carbonate of ammonia is evolved. Any lactates, oxalates, and salts, of other organic acids present in the urine, will be found in the ash, in the form of carbonate, although no carbonate existed in the urine originally. The ammoniaco-magnesian or triple phosphate will be found in the ash as phosphate of magnesia; the phosphate of soda and ammonia, as phosphate of soda. Other phosphates also become completely changed by the process of incineration, and by the action of other salts present in the ash upon them. During the incineration, a considerable loss of chlorine also takes place.

Again, unoxidised substances, such as sulphur and phosphorus, and partially oxidised compounds, in combination with organic materials, will become oxidised in the process of decarbonisation; and will, therefore, be found in the ash in the form of sulphuric and phosphoric acid. These will react upon some of the bases present, and sulphates and phosphates will be formed.

Professor Rose of Berlin, in a beautiful series of experiments, has proved that the mineral constituents exist in very different states in various organic substances. From the *carbonaceous* ash of some organic matters, the greater proportion of the salts can be extracted with water or acids; while, in other cases, but little saline matter can be separated, unless the mass be exposed to the oxidising action of the air for some time. This shows that the substances must have originally existed in an unoxidised or in a partially oxidised state, probably in combination with some organic material. In certain substances, then, the greater quantity of the mineral material is perfectly oxidised (*teleoxidic*); in others, it exists partly in an oxidised and partly in an unoxidised state (*meroxidic*). Professor Rose was not able to discover any substance in which it occurred completely unoxidised (*anoxidic*). In blood, milk, yolk of egg, and flesh, a considerable portion of the mineral constituents are *meroxidic;* while, in urine and bile, they are almost entirely *teleoxidic;* which is exactly what we should expect, when we consider the different nature and offices of these fluids.

Proportion of Saline Matter in Urine. About one-fourth of the solid matter of healthy urine consists of saline constituents which are not destroyed by a red heat.

One thousand grains of healthy urine, containing from forty to sixty grains of solid matter, will give from ten to fifteen grains of fixed salts. Of the salts, more than nine-tenths are soluble in water (alkaline salts); while the remainder can only be obtained in solution by adding an acid (earthy salts). A mere trace remains behind, which is insoluble in water, acids, and alkalies. This consists of silica, with perhaps a little carbon which has resisted oxidation. These numbers are, of course, only approximative, as the amount of salts is liable to great variation.

The saline constituents soluble in water are composed of the following acids and bases.

Sulphuric acid	Potash
Phosphoric acid	Soda (and sodium).
Hydrochloric acid (chlorine)	

The salts may be readily obtained in a crystalline state by dissolving the residue in hot water, and evaporating a few drops of the solution on a glass slide. The crystals are represented in the *Illustrations of Urine*, Pl. 1, Fig. 2.

The mineral constituents insoluble in water are composed of the following acids and bases.

Phosphoric acid	Lime
Carbonic acid (occasionally)	Magnesia
Silicic acid or silica	Alumina (sometimes).

In disease, the mineral constituents have been found to vary in quantity quite as much as the organic substances; and other salts are not unfrequently found, which will come under our notice at a future time: while occasionally one or more of the saline compounds mentioned in the above list are altogether absent.

The organic constituents of the urine have hitherto received a greater share of attention than has been given to the inorganic salts; but, from recent investigations, it seems probable that, before long, the physician will regard a departure from the healthy standard in the saline constituents with as much attention as he has been accustomed to observe an increase or diminution in the quantity of the urea, uric acid, or other organic ingredients.

Phosphates. The phosphates are a very important class of salts, which exist in greater or less quantity in all the tissues of the body, in the secretions, and in considerable proportion in the blood. The salts of phosphoric acid which are carried off from the organism in the urine, may be divided into two classes.

1. The *alkaline phosphates* are *soluble* in water, and are not precipitated from their solutions by ammonia or other alkalies. When ammonia is added to healthy urine, the *alkaline* phosphates are not thrown down. Some of the most important alkaline phosphates are, *phosphate of soda, acid phosphate of soda,* and *phosphate of soda and ammonia.*

2. The earthy phosphates are *insoluble* in water, but are dissolved by the mineral acids. Most are soluble in organic acids, although they dissolve very slowly if the acids are dilute. They are held in solution even by carbonic acid. Most albuminous substances have the power of dissolving earthy phosphates; and casein holds in solution a considerable quantity of phosphate of lime. The earthy phosphates, as phosphate of lime and phosphate of magnesia, are always precipitated when ammonia is added to healthy urine.

Of the phosphoric acid eliminated in the urine in the form of phosphates, the greater proportion is doubtless taken in the food; but a certain amount is formed in the organism by the oxidation of the phosphorus of albuminous tissues, which takes place during their disintegration. Much of the phos-

phoric acid formed in the organism is doubtless produced in the nervous tissue.

In these lectures, I have purposely avoided the use of chemical formulæ, partly because, in many instances, I should have had to enter too far into the province of chemistry to explain them, and partly because I felt that all that was necessary for the clinical examination of the urine might be explained without their use. It is, however, impossible to allude to the composition of the phosphates without giving their chemical formulæ; and I therefore propose to make an exception in the case of this class of salts.

Phosphoric acid is one of those acids which exist in three forms—the monobasic, bibasic, and tribasic acids, which combine respectively with one, two, or three equivalents of base, to form three different classes of salts.

Tribasic phosphates . . .	3 Na O, PO^5+24 Aq. 2 Na O, HO, PO^5+24 Aq. Na O, 2 HO, PO^5,+2 Aq. Na O, HO, NH^4O, PO^5+8 Aq.
Bibasic or pyrophosphates	2 Na O, PO^5+10 Aq.
Monobasic or metaphosphates	Na O, PO^5.

Now, the phosphates found in the organism are all *tribasic phosphates*, and consist of three equivalents of base, combined with one equivalent of phosphoric acid, with different proportions of water of crystallisation. The elements of the base of a tribasic phosphate may be various. Thus, they may consist of three equivalents of soda or other base, or two equivalents of soda and one of water acting the part of a base, or one equivalent of soda and one of ammonia and one of water acting the part of a base, combined with one equivalent of phosphoric acid.

The chemical composition of the phosphates occurring in urine is represented in the following table.

Common or rhombic phosphate of soda, having an alkaline reaction	2 Na O, HO, PO^5+24 Aq.
Acid phosphate of soda, having an acid reaction . . .	2 HO, Na O, PO^5+2 Aq.
Alkaline phosphate of soda, having a highly alkaline reaction	3 Na O, PO^5,+24 Aq.
Phosphate of potash* . .	3 KO, PO^5.
Phosphate of ammonia and magnesia, ammoniaco-magnesian or triple phosphate .	2 Mg O, NH^4O, PO^5+12 Aq.
Acid phosphate of lime . .	2 Ca O, HO, PO^5+3 Aq.
Phosphate of lime (bone-phosphate)	3 Ca O, PO^5

Alkaline Phosphates.

Common Phosphate of Soda—2 Na O, HO, PO^5 + 24 Aq. This salt exists in healthy urine in the proportion of about two grains in one thousand. The fixed salts contain perhaps from 20 to 30 per cent. of ordinary phosphate of soda. Its presence in healthy urine may be proved by adding absolute alcohol to the syrupy fluid obtained by evaporating the urine over a water bath. This concentrated fluid is poured off from the salts which have crystallised, and placed in a small glass vessel. The alcohol is added; and, after the mixture has stood for some time, the crystals are deposited upon the sides of the glass. This method is given by Robin and Verdeil (*Traité de Chimie Anat. et Physiol.*, par Ch. Robin et F. Verdeil.)

Acid Phosphate of Soda—Na O, 2 HO, PO^5+12 Aq. This salt has only been found in the urine; and to it, at least in many cases, the acid reaction of the urine is due. This acid phosphate of soda may be formed from the common phosphate (which has an alkaline reaction), by the addition of uric acid, which removes from the common phosphate one equivalent of soda, forming *urate of soda;* and the reaction of the mixture becomes acid, in consequence of the formation of the *acid phosphate.*

The acid phosphate of soda may be obtained from the concentrated urine treated with absolute alcohol, after the separation of the common phosphate. The acid salt, which is much more soluble, becomes deposited in the course of a few days; but its separation may be expedited by the addition of ether. This phosphate has been separated from the urine by MM. Robin and Verdeil, who attribute the acid reaction of urine to its presence (*Comptes Rendus. Mém. de la Soc. de Biologie*, Paris, 1850, p. 25; also *Traité de Chimie Anat. et Physiol.*, 1853). The crystals of this salt are figured in Robin and Verdeil's *Atlas*, Pl. IX, Fig. 2.

Alkaline or Basic Phosphate of Soda—3 Na O, PO^5+24 Aq. This phosphate is considered by some to be present in urine; but it is so readily altered by other salts present, that it is impossible to obtain it from the animal fluids in a state of purity. In the presence of carbonic acid, it is decomposed: one equivalent of soda unites with the carbonic acid to form carbonate of soda, and common phosphate of soda is formed, both which salts have an alkaline reaction—3 Na O, PO^5+ CO^2+HO=2 Na O, HO, PO^5+Na O, CO^2.

Liebig has shown that it is not present in healthy urine, as was stated by Heller; and Messrs. Robin and Verdeil do not enumerate this phosphate as one of the constituents of urine: indeed, if this phosphate were formed, it would, in all probability, be at once resolved into salts of a more stable nature.

Phosphate of Soda and Ammonia—Na O, NH^4O, HO, PO^5, +8 Aq. This salt, although probably not present in perfectly fresh urine, is usually enumerated as one of the phosphates found in the secretion. The crystals of phosphate of soda and ammonia, or microcosmic salt, are beautiful transparent four-sided prisms.

Phosphate of Potash—3 KO, PO^5—is probably not present in healthy human urine; but it has been detected by Boussingault in the urine of the pig, in the proportion of 1·02 per 1000.

Many vegetable tissues contain a large quantity of phosphate of potash; and it is met with in the juice of muscle in considerable quantity.

The proportion of alkaline phosphates in the organism varies according to the nature of the food. Generally, the proportion is smaller in herbivorous than in carnivorous animals. Muscular fibre contains a large amount of phosphates. Wheat, and the seeds of the cerealia generally, contain a considerable quantity of alkaline phosphates. Robin and Verdeil found in the ash of the blood of a dog fed upon flesh as much as 12 per cent. of phosphoric acid, combined with soda and potash; while the ash of the blood of the ox did not contain more than 3 per cent. When the dog was fed upon potatoes, the proportion fell to 9 per cent. The ash of the blood of man contained about 10 per cent. of phosphoric acid. In urine, Berzelius found 2·94 per 1000; and Simon, from 1·25 in slightly acid urine, to 2·75 in very acid urine.

Breed and Winter estimate the quantity of phosphoric acid removed from the organism in the urine, in the course of twenty-four hours, at from 59·48 to 79·97 grains. The proportion increased considerably after taking food. This quantity corresponds to from 120 to 160 grains of phosphatic salts.

The quantity of phosphoric acid increases for some hours after a meal. Vogel, Winter, and others, have made numerous experiments on this point; and their researches show that the hourly variation in the excretion of phosphate is regular. The morning urine contains the smallest quantity. In some of Dr. Bence Jones's analyses, however, the quantity of alkaline phosphates is even greater in the urine passed before than in that excreted after a meal (*Animal Chemistry*, p. 81).

The proportion of phosphates in the urine depends much upon the nature of the food. The quantity is increased if phosphorus is taken, proving that this substance does become oxidised in the organism. That the greater proportion of the alkaline phosphates present in the urine are derived from the food is rendered evident by referring to the amount introduced into the organism in this manner. A man taking about fourteen ounces of bread and twelve ounces of meat, with half a pound of potatoes and half a pint of milk, would take about 130 grains of alkaline phosphates.* As we have seen, he would eliminate, in his urine, about the same quantity. It is true that these numbers are only to be regarded as rough approximations to the truth; but I think, at present, it must be admitted that the quantity of phosphate excreted in the urine, but found in the organism, is so small in comparison to that which is derived from the food, the amount of which is liable to great variation, that, in the present state of animal chemistry, it is quite impossible to form an estimate of the amount

* It is doubtful if phosphate of potash usually exists in urine, as chloride of sodium and phosphate of potash decompose each other, forming chloride of potassium and phosphate of soda. It is not improbable that it may exist in urine in which the chloride of sodium is present in very small quantity, or altogether absent, as in pneumonia and some other acute diseases.

* 14 oz. of bread contain 53·2 grs. of phosphates.
12 oz. of beef „ 49·7 „ „
½ lb. of potatoes „ 11·0 „ „
½ pint of milk „ 32·0 „ „
136·9 grs. of mixed phosphates.

arising from the former source, or to separate this from the phosphates taken in the ingesta.

Still it is certain that some of the phosphoric acid is formed within the organism, by the oxidation of the phosphorus of the albuminous tissues; but this must bear but a small proportion to the whole amount of phosphate removed in the urine, as the above data conclusively show.

The fluid which surrounds the elementary fibres of muscle has an acid reaction, depending probably upon the presence of acid phosphate of soda, produced by the action of lactic or some other organic acid upon phosphate of soda. Du Bois Raymond has, however, shown that this acid reaction is not met with when the muscles are at rest. The ashes of most tissues contain phosphates in large proportion; and Schmidt has shown that a considerable quantity of phosphate is always present in young tissues. The quantity of alkaline phosphate required by the organism is considerable; for, besides the large proportion which is excreted in the urine, the ash of the solid excrements contains as much as 20 per cent. alone. The phosphoric acid required is, no doubt, supplied principally by the food, partly in the form of phosphatic salts, partly as phosphorus which is oxidised in the organism. We shall recur to this subject when we have to consider the elimination of the phosphates in disease.

[*To be continued.*]

Reviews and Notices.

A Manual of Obstetrics, Theoretical and Practical. By W. Tyler Smith, M.D., Member of the Royal College of Physicians; Physician-Accoucheur to, and Lecturer on Midwifery at, St. Mary's Hospital. Pp. 628. London: John Churchill. 1858.

The present unpretending-looking volume is one of Mr. Churchill's very valuable series of Manuals, and assuredly not the least important and valuable of them. As the author says in his preface, it consists of the substance of a course of lectures which appeared in the *Lancet* in the year 1856. Now, a *manual* is generally understood to be merely a compilation or epitome of certain doctrines and opinions held by the profession as established. Dr. Tyler Smith's book goes much further than this; for while he freely lays before the reader such doctrines and theories as have been accepted as fixed, and gives with strict impartiality the views and opinions of others on points which are *adhuc sub judice*, he, with bold originality, gives his own doctrines and opinions; in the former case, often turning quite aside from the beaten track; in the latter, endeavouring to throw the light of his own independent views and experience on the subjects discussed; in both cases—

"Nullius addictus jurare in verba magistri."

We have not space to comment on all the subjects discussed in this manual. In the first chapter—that on Generation—we find the philosophy of the subject clearly laid down, including many curious points, which, though not bearing exactly on obstetrics practically considered, are yet of considerable scientific interest: such, for example, as the strange phenomenon in reproduction to which the term "parthenogenesis" has been given. The anatomical and physiological descriptions are given with the brevity demanded by the occasion, but nevertheless with sufficient clearness. In the chapter on the Signs of Pregnancy, we find the opinion once prevalent on the subject of the uterine *souffle*—that that sound was caused by the placental function, being thence denominated *bruit placentaire*—effectually disposed of. "It has been heard in cases where putrid fœtuses have been born", and where there was other proof that there could be no circulation going on in the placenta: therefore, "the uterine *souffle* is no proof of the life of the fœtus".

Speaking of the *decidua vera*, we find our author adhering to the opinion that it is identical with the uterine mucous membrane, and that it is entirely thrown off after parturition, in the form of the lochial discharge, in the same way as, he says, the mucous membrane is removed with every menstruation. That this is "a startling doctrine", our author admits; but, nevertheless, certain facts adduced by himself, and by others before him, would seem to confirm it. We think, however, that Dr. Matthews Duncan, and some others, have published somewhere other facts, which equally strongly contradict it. The subject is one of but little practical value; and, therefore, we leave it.

The subject of the Duration of Pregnancy is highly important, and we have a very elaborate chapter upon it. Dr. Smith considers that the duration of pregnancy is a multiple of the catamenial period; "labour coming on at what would have been a catamenial period, had the woman remained unimpregnated". On this principle, he says, he constructed his well known Periodoscope, "upon the data that conception generally occurs a few days after the completion of a catamenial period, and that labour may be expected on some day of what would have been the tenth period, had pregnancy not intervened." Dr. Smith, however, with perfect impartiality, favours his readers with the views of those who differ from him on this point—of those, namely, who maintain that the time of labour is determined somewhat arbitrarily by the maturity of the fœtus. As "the last hypothesis respecting the variable duration of pregnancy", he mentions "that advanced by Dr. Clay of Manchester, who argues that the younger the parent, the shorter is the term of gestation". We must say on this point that, having carefully read Dr. Clay's paper on the subject, we think that the facts adduced by him confirm his theory very strongly; while, if the theory be true, it must upset the catamenial or ovarian doctrine.

On the question of the mechanism of parturition—a somewhat vexed one—we find our author follows Nägele, with too implicit acquiescence, we are inclined to think; but we are bound to say that, in so doing, he has the majority with him.

We recollect that, on the occasion of "a consultation at Norwich", in the year 1851, Dr. Murphy was much reflected upon for maintaining that it was possible for a portion of retained placenta to undergo hydatid degeneration. Our own opinion certainly was, that such a doctrine was preposterous. Dr. Smith, in the work before us, seems to hold with Dr. Murphy. He says that "Drs. Montgomery and Ramsbotham believe that small portions of placenta retained *in utero*, after parturition at the full term, may become the nucleus of hydatigenous formations; but Dr. Barnes combats this view, from the general history of hydatigenous formations, and the destruction of the fœtal vessels of the placenta which occurs at the time of birth." He adds, that the question—a very interesting one—must be considered, to some extent, as still unsolved. Dr. Smith, while on this subject, does not allude to the famous Murphy controversy of 1851. We could have wished that he had done so, as the opinion of a physician of such eminence as Dr. Murphy, put forward so prominently as it was, is of great importance; and the question itself is clearly one which ought to be settled, if possible; for, on the occasion referred to, the reputation of a most respectable man was seriously assailed.

The danger to the life of the fœtus in the administration of ergot of rye to the mother during parturition, is a vexed question which it is desirable should be settled. Dr. Hannotte Vernon, of the Great Northern Hospital, in a paper published a few years ago, argues for a poisonous influence of the drug, producing, as a perceptible effect, a gradual slowing of the fœtal pulse. He maintains that the child is sure to be still-born, if the fœtal pulsations become reduced below a specified rate. Dr. Smith, in the work before us, on the contrary, attributes the danger, if any, to "the spastic contraction of the uterus, caused by this medicine, which interferes with the utero-placental circulation;" adding, that "the state of the child should be watched

while the mother is under the influence of ergot, and delivery completed with the forceps, if the action of the fœtal heart is *quickened* to any great extent." For our own part, we do not believe that the ergot of rye is obnoxious to the grave accusation of killing the child in either of the ways suggested above. If the child be destroyed during the labour, when ergot has been given, we hold that it must be by some latent compression of the funis, the first perceptible effect of which would probably be a slowing of the fœtal pulse, as shewn by Brown-Séquard, in a paper "*Sur l'association des Efforts Inspiratoires avec une diminution ou l'arrêt des Mouvemens du Cœur.*" (*Journal de la Physiologie de l'Homme et des Animaux.* No. III. Juillet, 1858.) This eminent physiologist says that violent efforts at breathing produce a slowing of the pulse. And Casper, of Berlin, in his elaborate work, *Gerichtliche Medicin*,* shows that during intrauterine compression of the funis, the fœtus makes powerful instinctive efforts at pulmonary respiration, although still deprived of access to air. On this view, a slowing of the fœtal pulse may be a sign of compression of the funis, and, *in that way*, of danger to the life of the child. And on the same view, while Dr. Vernon's theory of a poisonous influence is not necessary to explain the slow pulse for which he contends, that slow pulse would justify Dr. Smith's theory —of interference with the utero-placental circulation, rather than would the acceleration, which the latter writer alleges is the effect of that interference, and which may or may not be the fact. In short, Dr. Vernon's fact, if fact it be, of the slow pulse, is confirmatory rather of Dr. Smith's explanation than of his own—the poison theory.

While on this subject, we must not omit to mention (and we do so, less for the purpose of producing evidence in favour of any opinions of our own, than for that of presenting one of the many proofs we find in the book of our author's spirit of investigation), that Dr. Smith himself, in his chapter on the *Fœtus in Utero*, referring to some experiments made in the year 1850, "with a view to determine the particular reflex movements manifested by the fœtus *in utero* under irritation," says that he observed *respiratory* movements. There was, he says, "constantly a movement of the head as if in respiration; the respiratory movements affected the whole of the upper part of the body..... It appeared to me....that movements of respiration do not occur, as is supposed, for the first time after birth, but that the muscles have been exercised previously." We have thus, observed by Dr. Smith, the fact of respiratory movements on the part of the fœtus while still wholly within the uterus, although he does not attribute those movements to the same exciting cause as Casper does. Their occurrence under compression of the funis when the fœtus is partly born may be noticed in almost every case of pelvic birth, and are, indeed, well understood as a sign of danger to the life of the child; in fact, as our author himself says, in his chapter on Pelvic Presentations, "no other sign of danger to the fœtus is so trustworthy as the occurrence of these jerking spasmodic attempts at respiration."

These independent and impartial observations of different authors serve to show, at least, that we are by no means reduced to the necessity of accusing the ergot of rye, simply because the fœtal pulse may have been affected prior to the expulsion of a dead child; there being several other dangerous causes capable of producing the effect in question—that is, on the supposition of the correctness of Brown-Séquard's views of the association of forcible respiratory efforts with affections of the circulation. For our own part, we must decline to listen to these theories claiming to be explanatory of the assumed fact of the destructive effects of the ergot of rye—theories confused, contradictory of one another, and susceptible of other explanations, as we have shewn them to be, preferring to adhere to an opinion long since arrived at from the independent and careful observation of a great number of cases, in which we have administered the ergot of rye without hurting the child: that that drug cannot *per se* kill the fœtus *in utero*. That the fœtus may be destroyed by it, when given for the express purpose of inducing premature delivery, is, we think, satisfactorily shewn by Dr. Ramsbotham. And, in corroboration of our further conviction that this assumed fact, so attempted to be explained, has never yet been *proved*, we are, even while writing this, enabled to refer to the important evidence of a recent decision of the French Academy of Medicine, in a report to which, presented on May 24th, 1859, the eminent names of MM. Paul Dubois, Danyau, and Depaul, are attached.

We find that Dr. Smith reproduces, in the present work, a theory originally propounded by him in 1848, in which, endeavouring "to draw a distinction between the movements of the fœtus and those of the uterus," he maintained "that many of the movements commonly attributed to the fœtus really belong to the uterus." On the present occasion, Dr. Smith refers to this theory chiefly for the purpose of acknowledging that he "now believes he underrated the extent and influence of the fœtal movements." This is a commendable kind of honesty, which, we regret to say, is rarely to be met with on the part of authors. We think, however, that we have seen cases which are explicable only on some such hypothesis as that originally propounded by Dr. Smith.

But let us leave speculations and theories, and come to something more usefully practical. We have said that our author has not been afraid to depart from the beaten track, even when that track is almost universally adhered to as were the laws of the Medes and Persians. "Meddlesome midwifery is bad," is a well known axiom, and a very useful one—to a certain extent. It cannot be too forcibly impressed upon the ignorant, the uneducated, the careless, the hard-hearted; but with Dr. Tyler Smith we cordially and heartily concur, in thinking that the rule may be pushed too far, and that it may lead to evils worse than those it is meant to hold in check. There is all the difference in the world between the rashness and impatience of clumsiness and ignorance, and the boldness of scientific knowledge and of the *tactus eruditus*. Dr. Tyler Smith is now well known, and worthily known, as the advocate of the *abolition of craniotomy*—a benevolent idea, which he proposes to carry out by putting in practice all the resources of intelligent and educated obstetric art. Of these resources, with parturition at the full time, turning and the forceps are important ones—"meddlesome midwifery", both of them. The latter he advocates in a much earlier stage of the labour than books have hitherto sanctioned. Quoting Dr. Simpson, he says that "no other circumstance exerts so prejudicial an effect as the prolonged duration of labour". We quite agree with Dr. Smith in not insisting, as many do, on the necessity of waiting for full dilatation of the os uteri before applying the forceps: indeed, we have found in practice that, in some of the cases where the os uteri, although very dilatable, seems to be unusually slow in completing its dilatation, the process requires to be assisted mechanically by the passage of the head, which is delayed by a narrowness at the brim of the pelvis. It is, therefore, we think, especially in such cases that the forceps is required. The os does not complete its dilatation so as to slip over the head, simply because the head cannot get low enough to pass through it. We have frequently used instruments to aid the delivery, under this condition, with immediate advantage, and with perfect safety to both mother and child. Why so much dread of introducing the blades of the forceps within the uterus? The whole hand is often introduced there without any harm being done. Why fear to pull the head through a partially dilated os uteri? Do we not often

* Practisches Handbuch der gerichtlichen Medicin, von Johann Ludwig Casper. Thanatologischer Theil. Berlin, 1857. SS. 466, 706, 707, 708, 803, u. s. w. Casper dwells much upon the fact, speaking of these efforts as "lebhafte Athmungsbewegungen" and "wirkliche Athemzüge," etc.

pull the fœtus through an os uteri tightly grasping it, in cases of feet-presentation?

The meddlesome midwifery that is really bad is the brutal interference of men who thrust perforators and other horrible instruments hap-hazard up the vagina, careless whether they thrust them through the cervix (the os being entirely undilated), or right through the fundus uteri—it may happen among the bowels of their unfortunate and too trusting patient. Such things have been, and may be found recorded in the annals of some of our criminal courts. Shall we, to escape the accusation of "meddlesome midwifery", or pleading the axiom to avoid the acknowledgment of some less worthy motives, leave a woman to her fate, who is flooding to death with placenta prævia? We have known such things done, to the eternal disgrace of the profession, which, by endorsing the axiom, could, however indirectly, sanction such a proceeding. Let but the student or the practitioner study carefully the anatomy and physiology of the subject, as laid down in such excellent works as the one before us; and, depend upon it, we shall find what is too often branded as "meddlesome midwifery" lead to such very desirable results as are contemplated in the concluding paragraph of our author's manual.

"In concluding the present work, I cannot but look forward to the time when the present mortality from child-bearing will be very materially lessened. This is a subject in which we of the present day must bear our part; and it is consolatory to know that every succeeding generation of students and practitioners will come to the work with added means of science and experience, until at length we may hope that no unnecessary mortality shall take place in parturition."

In this benevolent wish of our author we cordially concur. We are quite sure *he* is doing *his* part. May the rest of us, following his teaching, try to do ours!

Periscope.

DENTAL SURGERY.

APPLICATION OF ELECTRICITY AS AN ANÆSTHETIC.

On Tuesday, June 7th, 1859, at a meeting of the College of Dentists, the report of a Committee, composed of members of the medical and dental profession, appointed to examine into the value of electricity in producing anæsthesia in dental operations, was read by Dr. Richardson. The following is an abstract:—

Sixty-eight cases of extraction were recorded, in sixty-five of which the anæsthetic value of electricity was tested; in fifty-five of those the intermittent current was used, and in ten the continuous. In these experiments every possible modification was introduced. The poles of the batteries were reversed in different cases; the force of the current, as indicated by the sensations of the patients, was varied; and every necessary precaution was made to secure insulation of the operator. In a large proportion of these cases the results were negative, In some the application of the current produced additional pain; in others less pain was produced: and in five cases there was direct evidence of relief.

In cases where relief was most apparent, the committee believed that the insensibility was general, the patient being, at the time of operation, in a state of syncope. In cases when it was expressed that the pain was less than had been experienced on previous occasions, when no electricity was used, the committee considered that the apparent benefit was tracable to four causes:—diversion of sensation, less difficulty in extraction, syncope more or less marked, and differences in method of operating.

Cases in which pain was increased by the current were those of recent inflammation of the periosteum, or where abscess was present. In regard to the direction of the current of electricity, its force, as computed by the sensations of the patient, the position of the poles, and the different forms of electrical apparatus and currents, the committee could arrive at no affirmative results; differences in these respects indicating in the main no specific differences in effect.

In a final point the committee were unanimous, that in not one instance did any member observe the nearest approach to local anæsthesia. At the same time, the members were of opinion that the intermittent current was allowable in certain cases as a means of producing a diversion of sensation. But as, in a scientific point of view, the electrical current could not be accepted as an anæsthetic, the committee had no data on which to recommend any special electrical apparatus; nor any particular method of applying electricity in dental operations.

British Medical Journal.

SATURDAY, JUNE 11th, 1859.

OLD FATHER THAMES AGAIN.

When Bramah invented the water-closet, about the beginning of the present century, salmon were not unfrequent visitors of our metropolitan river, and trout were caught as low as Chelsea. It may puzzle some of our readers to know what possible connexion we can find between water-closets and fresh-water fish; but a little reflection will show that the very existence of the one is destructive of the other—at least, with our present imperfect arrangements. Before the introduction of water-closets, a common cesspool under each house received its sewage; and, consequently, not one particle of the excrementitious deposits of this great city ever fouled the purity of its beautiful river.

When London was plague-stricken, in the reign of Charles II, in consequence of the filth that soddened its foundations, the river flowed pure and bright; and Izaak Walton angled at Chelsea, with a certainty of being rewarded for his labours, The moment, however, we began to purify the land, so certainly we commenced to pollute the water. It was found that cesspools could no longer accommodate the amount of sewage, when water was called in to flush our closets: consequently, the drains, which had been used simply for carrying off the surface-water of the streets, were called upon to drain our houses also; and thus the contamination of the Thames began. It has required at least half a century, however, for this contamination to begin to tell upon the inhabitants. The first sense to be assaulted was that of taste. It was suddenly discovered, after the passing away of the cholera, that those companies supplying water from notoriously filthy parts of the river were answerable for supplying cholera also. Thames water at Chelsea Bridge had begun to revenge itself for all the accumulated injury it had suffered from the inhabitants. At a vast expense (which comes out of the public pocket, of course), the water companies endeavoured to baffle the just retribution we were suffering from the river, by obtaining their supplies from higher and purer sources. Old Father Thames is not, however, to be baffled. If we will not taste, we shall smell; and thus he

makes a second onslaught on us through the medium of our noses.

Last year, during the middle of June, the stench was so terrible that for some time there existed a fear of some great epidemic from the foulness of the river. Dr. Letheby, in his weekly report on the health of the City, gives a very clear and satisfactory account of the manner in which these dreadful exhalations so suddenly arose. He says:—

"I made a full inquiry into the matter. The water was examined chemically and microscopically. It was tested at high and low tides, at midstream and near to the shores. It was collected at many places between Isleworth and Greenwich, and the inquiry was conducted with regularity every day during the whole time that the river was foul. The general results of the investigations were, that the river was highly charged with sewage and sea-water; and that the circumstances which attended or preceded the fœtid decomposition were a remarkably hot season, a continued absence of rain, a diminution in the public water supply, a flowing up of the oceanic, or tidal sea-wave, to an unusual height, and the sudden discharge of a large quantity of very offensive sewage from the somewhat stagnant sewers by a heavy fall of rain; the discharge occurring about low tide, when, instead of its passing away to sea, it flowed upwards to the higher districts of the river, and then oscillated between the extreme ranges of the tide. This last fact was particularly observed by Captain Burstall, and this year he has noticed it again.

"Taking the result of one hundred and seventy-two analyses of the water which were then made, it was evident that the putrid decomposition was kept up by the sewage acting on the sulphates, etc., of the sea-water; and that the locality or confines of the decomposition was a wave undulating between Chelsea and Greenwich. At high tide it was at the former place, at low tide at the latter. The unfortunate situation of the Houses of Parliament, nearly midway in the range of undulation, was the cause of their being exposed at all times to the fœtid exhalations from the putrid wave, which never passed away beyond them."

Now it would almost seem as though Old Father Thames was determined to play a practical joke upon the representatives of the nation. As they have trifled with the question of Metropolitan Drainage for so many years, and have at length decided that it was a local rather than an imperial affair, it does seem as though the old river god in revenge had determined to fix the undulations of his most unsavoury tide just before their very doors. He did so last year; and the joke, if it does not turn out something more, is just commencing again, for the flower of the English nation, like the Three Kings of Brentford, are smelling at the one nosegay he offers in the pestiferous halls of St. Stephen's. Sydney Smith used to say that we should never have safe railway travelling until a bishop was sacrificed on some ill-conducted line. Possibly, now that the growing evils of the Thames undulate so provokingly before the very doors of the senate, government will begin to think that the danger is at least imperial, and that something must be done. If the river is so foul now, what will it be in the dog-days? At the present moment, we are told by Dr. Letheby that it contains about 97 grains of solid matter per gallon, of which 61 are common salt, and rather more than 7 are organic impurities in a high state of decomposition, and giving off ammonia with a peculiarly offensive vapour. He further says that "the water near the shore is poisonous to every living thing but vibriones and the simplest of vegetable fungi."

To such complexion have we brought our noble river at last! It is evident that there is no time to meet this alarming difficulty by any other than temporary measures. It will be years before the intercepting sewers will be finished; meanwhile, however, something must be done, and that in the direction of our old motto, "The rainfall to the river, and the sewage to the land." As we cannot get the monster sewers, we must manage by means of barges to intercept and carry away our British guano to the fields, rather than allow it to convert our metropolitan river into a common sewer, and, it may be the population on its banks into a plague-stricken people.

THE WEEK.

THE movement throughout the country in favour of forming rifle-corps must, we think, be looked upon in an especially favourable light by all those interested in the public health. We cannot help thinking that the increase which has taken place within the last hundred years in the long and melancholy list of nervous diseases, is in a great measure to be attributed to the increased sedentary habits of the population. Villages have increased to towns, commons have been enclosed, and the difficulty of obtaining fresh air and exercise has for a considerable time gone on increasing. The old games of our ancestors have died out; the shooting at the butt, which once took place on every village green, has long since vanished; football, which the 'prentices of London and other large towns played at even in the great thoroughfares, is now confined to the great public schools; the innumerable games which came round on certain festivals, and which make Hone's *Every Day Book* still so cheering to the reader, have given place—to what? —mechanics' institutes! The clerk, tired with sitting on a high stool all day, and the shopman, unnerved with fiddling over haberdashery, and poisoned with the gas, is invited to invigorate his wearied body and mind by attending classes in Athenæums, or by listening to third-rate lectures on pneumatics, illustrated by the murder of helpless mice. Now all this sort of thing is excellent in its way, but we contend that it is not the way to have strong and healthy Englishmen. After the stifling duties of the office or shop are done, their inmates want good air and out-of-door exercise, which will at the same time amuse the mind, arouse the attention, and brace the body. We have cricket, it is true; but this is too active a game for persons above a certain age, and, moreover, there is not sufficient motive in it to enlist large classes of the population. Rifle-shooting, however, supplies all the interest and the exercise that is required. The formation of corps for this purpose will, we trust, lead large portions of the population into the open air, and thereby add vigour to their limbs and sparkle to their eyes. It is a notorious fact that the race of clerks and shopmen are amongst the most unhealthy classes of the population. If our rifle-corps are to be anything better than narrow cliques, they will be largely permeated by these classes, which constitute so considerable a proportion of the able-bodied young men of the middle class. We hail, therefore, with great pleasure the re-erection of shooting butts throughout broad England; and we feel convinced that they will be instrumental in banishing many nervous diseases which

baffle the skill of the physician and render the patient miserable and helpless.

Among a number of recipients of the Victoria Cross from the hands of the Queen, on Wednesday morning last, were the following two members of the medical profession:—Staff-Surgeon Anthony Dickson Home, late of 90th Regiment (now of a Depôt Battalion), for persevering bravery and admirable conduct in charge of the wounded men left behind the columns when the troops, under the late Major-General Havelock, forced their way into the Residency of Lucknow, on the 26th September, 1857.—Assistant-Surgeon William Bradshaw, late of the 90th Regiment (now of 32nd Foot), for intrepidity and good conduct in removing the wounded men left behind the column that forced its way into the Residency of Lucknow, on the 26th September, 1857.

On Wednesday last, John Nichol Watters, *alias* Dr. Watters, and Claude Edwards, were examined at the Lambeth Police Court, on a charge of conspiring, with another person, to defraud Mr. Thomas Jones of one guinea. The prosecutor deposed that he was a retired tradesmen, and resided at 75, Mount Street, Grosvenor Square, that he was much afflicted with deafness and noises in his head, and that, in consequence of the printed circular produced being given to him by an acquaintance, he, on the 11th or 12th of last month, went to No. 28, Mount Gardens, Westminster Road, whence the circular was addressed. He there saw a young man who subsequently said his name was Allen: and on his describing the nature of his complaint, he said he was assistant to Dr. Watters, that he had attended a thousand such cases for the doctor, and cured all; and that in his (witness's) case he should effect a perfect cure in a week. He then gave him three bottles of "stuff," and the slovenly manner in which they were made up, as well as the careless manner in which the directions for use were written, first led him to suspect all was not right. He was to syringe the back of his head, neck, and ears with it; but it was "nasty stuff." Allen wanted him to pay a guinea for it; but he refused to give more than five shillings. Witness called again on May the 25th, when he saw the younger prisoner, Edwards, who represented himself to be Dr. Watters. He gave Mr. Jones three more bottles of stuff, for which he charged sixteen shillings. The witness paid a third visit to the house on Wednesday, when he saw Dr. Watters for the first time. After asking the nature of his complaint he examined his ears. The defendants gave witness a large bottle, which they wanted him to pay for; but he refused to do so, observing that the undertaking in the first instance was to cure him in a week for a guinea, and that sum he had already paid. He then gave both prisoners into charge to an officer who came in. As it was necessary to make an examination of the "stuff", Mr. Norton, the magistrate, remanded the prisoners. He had no objection to accept good bail for their appearance on a future day; and if Dr. Watters, as he called himself, was the respectable person he represented himself to be, he could have no difficulty in finding the necessary sureties. The name of Watters will be recalled to mind in connexion with the "Bennett Gang", who, it will also be remembered, employed urine as their panacea.

In reporting, on May 31st, with regard to the examination by the University of Cambridge of students who were not members of the University, the Syndics made the following remarks:—

"The Syndics have much pleasure in drawing attention to two instances which have already appeared of these examinations being recognised by important public bodies as substitutes for their own. The Royal College of Surgeons, as appears by a notice, dated February 10th, 1859, admit without examination a candidate for the Diploma of Member of the College to commence his professional education, if he can produce a certificate of having passed either the junior or senior examination instituted by the Universities of Oxford or Cambridge for those who are not Members of the University: and a similar exemption from their own preliminary examination is conceded by the Society of Apothecaries."

THE MEDICAL COUNCIL.

BRANCH COUNCIL FOR IRELAND.

Wednesday, May 11th, 1859.

Present:—Dr. Leet, in the Chair; Dr. Williams, Dr. Smith, Dr. Apjohn, Dr. Corrigan, and Dr. Stokes; Dr. Maunsell, *Registrar*.

Read—Letter from the Director-General of the Army Medical Department, stating that he had made a communication to the principal medical officer in Ireland, who will take the necessary steps for making the arrangements for Registration under the Medical Act known to medical officers of the army serving in Ireland.

Returns from the Universities of Erlangen and Giessen were laid before the Council; and the cases of six gentlemen who have obtained degrees in those Universities, without regular examination, having been considered, the Council declined to make special orders for their Registration.

Read—Letter from the Registrar of the Branch Council for England, suggesting that the Educational Returns presented by the Irish Medical Colleges and Bodies should be printed in Ireland.

Ordered—That the suggestion be adopted, and that the Registrar do forthwith proceed in accordance with it; also, that any supplemental matter which the respective bodies may desire to add to their original returns, be printed therewith.

D. J. Corrigan.

Wednesday, May 25th, 1859.

Present:— Dr. Corrigan, in the Chair; Dr. Smith, Dr. Williams, Dr. Leet, Dr. Apjohn, and Dr. Stokes; Dr. Maunsell, *Registrar*.

The minutes of last meeting were approved and signed.

Returns were read from the Universities of Giessen, Berlin, and Paris; and the following gentlemen, who appeared from the returns to have obtained their degrees after regular examination, were ordered to be registered:—viz., Thomas Aickin, as M.D., Berlin; James Jasper McCaldin, M.D., Berlin; Robert McKinstry, M.D., Giessen, Thomas Neilson, M.D., Paris; John Ryan, M.D., Paris.

The Registrar having asked for instructions respecting the registration of the qualification of Diploma or Licence in Surgery of the University of Dublin, it was

Resolved—That in accordance with the provisions of Clause 27 of the Medical Act, the Registrar be directed to insert in the Register, the Diploma or Qualification in Surgery conferred by the University of Dublin, appended to the names of such gentlemen as possess it.

James Apjohn.

Association Intelligence.

BRITISH MEDICAL ASSOCIATION: ANNUAL MEETING.

THE Twenty-Seventh Annual Meeting of the British Medical Association will be holden in Liverpool, on Wednesday, Thursday, and Friday, the 27th, 28th and 29th days of July.

President—W. P. ALISON, M.D., F.R.S.E., Edinburgh.
President-Elect—JAMES R. W. VOSE, M.D., Liverpool.

The Address in Medicine will be delivered by EDWARD WATERS, M.D., Chester, President-elect of the Lancashire and Cheshire Branch.

The Address in Physiology will be delivered by A. T. H. WATERS, Esq., Liverpool, Lecturer on Anatomy and Physiology in the Royal Infirmary School of Medicine.

It is particularly requested that all members who propose to read papers will communicate with the General Secretary without delay.

PHILIP H. WILLIAMS, M.D., *General Secretary.*
Worcester, April 26th, 1859.

MIDLAND BRANCH.

THE Annual Meeting of this Branch will be held at Derby, at the Board Room of the Infirmary, on Thursday, June 23rd, at Two o'clock. The annual dinner will take place at the Royal Hotel at Five o'clock.

HENRY GOODE, M.B., *Honorary Secretary.*

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
MIDLAND. [Annual Meeting.]	Board Room, Infirmary, Derby.	Thurs., June 23rd, 2 P.M.
METROP. COUNTIES. [Annual Meeting.]		Tuesday, July 5th, 8 P.M.

[To prevent delay, Reports of Branch Meetings should be sent direct to the office, 37, Great Queen Street.]

LETTERS AND COMMUNICATIONS.

Letters or communications for the JOURNAL should be addressed to Dr. WYNTER, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the JOURNAL, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

SOUTH MIDLAND BRANCH: ANNUAL MEETING.

THE third Annual Meeting of the above Branch was held at the General Infirmary, Northampton, on Monday, May 30th, 1859; J. H. WEBSTER, M.D., President, in the Chair. There were also present: G. Ashdown, Esq. (Northampton); T. Herbert Barker, M.D. (Bedford); W. A. Barr, M.D. (Northampton); W. Birdsall, Esq. (Northampton); Thos. Clark, Esq. (Wellingborough); E. Daniell, Esq. (Newport Pagnell); F. Dufty, Esq. (Stony Stratford); B. Dulley, Esq. (Wellingborough); D. J. T. Francis, M.D. (Northampton); G. Hammond, Esq. (Irthlingborough); James P. Knott, Esq. (Blisworth); J. G. Leete, Esq. (Thrapstone); J. Logan, M.D. (Kettering); B. Marsack, Esq. (Olney); F. H. Marshall, Esq. (Moulton); James Mash, Esq. (Northampton); P. McLoskey, M.D. (Rothwell); W. Moxon, Esq. (Northampton); P. R. Nesbitt, M.D. (Northampton); John Ody, M.B. (Market Harborough); W. Paley, M.D. (Peterborough); William Percival, Esq. (Northampton); T. Philbrick, Esq. (Stamford); T. Prichard, M.D. (Abington Abbey); A. Robertson, M.D., F.R.S. (Northampton); W. A. Skinner, Esq. (Kingscliffe); F. Southam, Esq. (Wansford); R. S. Stedman, Esq. (Sharnbrook); H. Terry, sen., Esq. (Northampton); H. Terry, jun., Esq. (Northampton); W. Thurnall, Esq. (Bedford); R. W. Watkins, Esq. (Towcester); W. S. Wyman, Esq. (Kettering); and the following visitors: J. M. Bryan, Esq.; Captain Glen; J. F. Gray, Esq.; W. P. Knott, Esq.; J. Lyman, Esq.; C. H. Marriott, Esq.; J. L. Morley, Esq.; S. Terry, Esq.; and A. E. Woolrych, Esq.

The minutes of the last meeting having been read and confirmed, the retiring President, E. DANIELL, Esq., resigned his seat to the new President, J. H. WEBSTER, M.D.

PRESIDENT'S ADDRESS.

The PRESIDENT, upon taking the chair, after congratulating the meeting upon the success that had attended the South Midland Branch, enrolling now, amongst its members, more than one half of the profession in the two counties of Northampton and Bedford, directed attention to the specialities of practise to be adopted by individuals upon their names appearing in the forthcoming register as legalised practitioners. Though the title column in schedule D had, by the recent Act of April, been abandoned, each practitioner must keep within the bounds of his qualifications; and the new Act did not rescind the powers of the previously existing corporations. When it was publicly known "*who were, and who were not,*" qualified to practise the various branches of medicine and surgery, the restrictive and penal clauses of the Act might in some cases be called into operation, which would probably generate a spirit of retaliation; and it would be most unwise to give any handle to the enemies of the faculty. The new Medical Act tacitly acknowledged the existence of a large body of men practising illegally; moreover, from the facilities foolishly afforded for registration, it had raised up certain claimants for the honour of registration, on the plea of having been in practice prior to 1815, who from that to the present year of 1859, never assumed any such pretensions. The enforcement of the restrictive clauses of that act had been much inquired after and discussed, and to questions sent up to the Registrar on the subject, evasive answers had only been returned; the Registrar giving, on one occasion, his individual opinion, namely, that the "*Medical Council could not be a prosecuting body.*" To the Medical Council had been confided by Parliament the administration of that Act, and it remained to be seen whether they would discharge the duties they have undertaken, or perform those only which are agreeable to their feelings, and leave the disagreeables unperformed. They will doubtlessly attempt to follow the example of the College of Surgeons and Apothecaries' Company in these respects; but it will be highly impolitic for the profession to assume their neglect of palpable duties by undertaking such deficiencies. It was most undesirable that any individual, or local committee of individuals, should institute proceedings against illegal practitioners. The latter would enlist the sympathies of an undiscerning public in their behalf as martyrs to peculiar professional opinions, and so augment their notoriety and reputation, the very cards they so skilfully and profitably play. If the General Council should repudiate the penal clauses of the Act, the conduct of proceedings against unqualified practitioners should then be confided to some large central body, free from local feelings, interests, and prejudices; who, by means of an organised staff of secretaries, agents, and lawyers, could minutely and impartially examine into alleged cases of malpractice, etc., and originate the necessary prosecutions. Such a central body is in existence as the London Medical Registration Association, which is inviting and receiving into alliance with itself, the Branch Associations throughout the kingdom; union with that body is highly desirable for increasing its moral influence with the General Council; as also assisting in supplying pecuniary means for the general interests of the profession. There are good reasons justifying the inference that the new Medical Act will lead to many changes in the present condition of professional practice. Admission to the Colleges of Physicians is being facilitated; the dispensing of medicines by the general practitioner is no longer necessary to the recovery in a court of law of professional remuneration. The public will learn to pay for time, skill, and experience, and not for the mere tools employed; so that pharmacy will, by many practitioners in towns, be quickly and joyfully abandoned. Members of the College of Surgeons will be diplomatised by a College of Physicians; and, except there be some coalescing of the London College of Physicians with the Apothecaries' Company, in establishing a new mode of medicalising the member of the College of Surgeons to qualify the general practitioners of the day, the Society of Apothecaries will gradually decline, and revert to its sole original functions. But there will be ulterior changes; the history of medical legislation during the past century is suggestive of others, and which it is of the utmost importance should be steadily regarded by the profession, and by an alteration of the

existing system in the prescribing of medicines, should be entirely obviated.

VOTE OF THANKS TO THE PRESIDENT.

Mr. Daniell proposed, and Mr. Dulley seconded, a vote of thanks to Dr. Webster for his able address, with the request that he would allow it to appear in the Journal. The motion was carried unanimously.

ELECTION OF OFFICERS.

It was proposed and seconded, and carried unanimously—

"That T. H. Barker, M.D., of Bedford, be the President-elect for the ensuing year."

Mr. Terry, sen., proposed, Dr. Nesbitt seconded, and it was carried—

"That the following gentlemen be requested to act on the Committee for the ensuing year: W. Blower, Esq. (Bedford); T. Clark, Esq. (Wellingborough); E. Daniell, Esq. (Newport Pagnell); D. J. T. Francis, M.D. (Northampton); J. G. Leete, Esq. (Thrapstone); F. H. Marshall, Esq. (Moulton); T. Prichard, M.D. (Abington Abbey); and W. S. Slinn, Esq. (Ampthill); with the President, President-elect, and Secretaries."

The Secretaries, R. S. Stedman, Esq., and H. Terry, jun., Esq., were reelected.

REPRESENTATIVES IN THE GENERAL COUNCIL.

Dr. Nesbitt proposed, and Dr. Robertson seconded, the following gentlemen as representatives in the General Council for the ensuing year:—T. H. Barker, M.D. (Bedford); H. Veasey, Esq. (Woburn); and J. H. Webster, M.D. (Northampton).

NEW MEMBERS.

The following gentlemen, having been previously elected members of the Association by the Council of the Branch, were duly balloted for as members of the Branch, and elected unanimously:—George Cotton, Esq. (Northampton); Arthur Cox, Esq. (Long Buckby); Frederick Cox, Esq. (Welford); Charles Dodd, Esq. (Northampton); William Moxon, Esq. (Northampton); W. A. Skinner, Esq. (Kingcliffe).

PLACE OF NEXT MEETING.

On the motion of Mr. Daniell, seconded by Mr. Leete, it was resolved to hold the next meeting at Leighton Buzzard, in September next.

PAPERS AND COMMUNICATIONS.

The following papers were read: most of them will be published in the Journal.

1. Forced Alimentation. By P. R. Nesbitt, M.D.
2. Case of Abdominal Hysterotomy. By G. Ashdown, Esq.
3. Notes on the Cholera Epidemic at Towcester in 1854. By R. W. Watkins, Esq.
4. Case of Strangulated Inguinal Hernia. By B. Marsack, Esq.
5. Some Cases of Ascites, apparently arising from Chronic Peritonitis. By W. Paley, M.D.

MEDICAL REGISTRATION.

The President then alluded to the subject of Medical Registration, and called upon Mr. Gray to read a letter which he had received on the subject from Dr. Ladd, Honorary Secretary to the London Medical Registration Association. The President suggested the propriety of the *local* Registration Society amalgamating with the London Society.

Dr. Francis doubted the propriety of such a step being taken at that time, due notice of the discussion not having been given; and advised a special meeting of the Registration Association, to consider and decide upon the point.

VOTES OF THANKS.

Mr. Dulley proposed, and Dr. Francis seconded, a vote of thanks to the authors of the several papers and cases, with a request that they would allow them to appear in the Journal.

Mr. Marsack proposed, and Mr. Terry, jun., seconded, a vote of thanks to the President, Dr. Webster, for his kindness in presiding.

Mr. Philbrick proposed, and Mr. Watkins seconded, a vote of thanks to the Governors of the Infirmary, for the use of the board-room.

THE DINNER.

The members of the Branch subsequently dined together at the George Hotel, where the usual loyal and professional toasts were given and responded to.

Editor's Letter Box.

LICENTIATESHIP OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

Sir,—The numerous attacks which have been made upon the recent regulations of the Royal College of Physicians of Edinburgh, the evident misconception which prevails regarding their real nature and intention, the strong and somewhat unusual step which has been taken by the London College in remonstrating against them, have seemed to me to demand, on the part of some one connected with the Edinburgh College, a fuller and more complete vindication of them than any one of those which have from time to time appeared in your columns. Admirable as these have been, they have been confined to isolated portions of the scheme; and, with the exception of the letter addressed by the Edinburgh to the London College, in reply to the remonstrance of the latter, and which is also, of necessity, somewhat limited, there has been no attempt, on the part of any Fellow of the Edinburgh College, to vindicate the entire policy of that body. For this reason, I am induced to request your insertion of the following correspondence; for, long as it is, I think the subject justly claims the space in your columns which it will occupy, as it is of importance to all classes of medical men, each one of which is more or less affected by it.

The first letter is part of a communication addressed by a Fellow of the London College to an office-bearer in the Edinburgh College, and the second is his reply. I am, etc.,

An Office-Bearer in the Edinburgh College of Physicians.

I. *Extract from a Letter addressed by a Fellow of the Royal College of Physicians of London to an Office-Bearer in the Royal College of Physicians of Edinburgh.*

London, May 30th, 1859.

My dear Dr. . . . . ,—I admit that I most heartily disapprove of the late movement of your College in respect of the manufacture of Licentiates from any, the merest tyros in the profession. I say frankly, that to me it appears nothing else than an acknowledgment of poverty, and a flimsy attempt to enrich your exchequer by a questionable mode.

I really wish to know the parties who are aspiring to the honour. I am plagued with applications for testimonials as to character, and have in every instance refused, and given my reasons without reserve.

I am sorry that you have sanctioned this movement; for, however much the university party are to be blamed for the active steps they have taken against the corporations, there were certainly other modes of doing battle than ruining the reputation of your College.

You have lost immeasurably in the opinion of the London College by this false step; and I really think, the sooner you blot out this stain, the better for all.

Believe me, yours very truly, ———.

P.S. You have not even the safeguard of the ballot.

II. *Letter, in reply, from an Office-Bearer of the Edinburgh College of Physicians.*

Edinburgh, June 1st, 1859.

My dear Dr. . . . . ,—Do not be alarmed at the size of this sheet. When I first read the memorable, and, allow me to say, unfortunate letter, addressed by your College to that of Edinburgh, I felt certain that our recent regulations had been misunderstood; and now, when I see, by yours of the 30th ult., how completely you, a leading Fellow of the London College, misconceive them, I gladly embrace the opportunity afforded by your letter to enter on a full discussion of them, being satisfied that, if I succeed in removing your prejudices, you will do your best to set us right with your colleagues, and endeavour to get them to reply in a suitable manner to the letter of our College.

I need not tell you that the remonstrance of your College, instigated as it was by members of the university minority in ours, has proved a heavy blow and great discouragement to all *your* friends, and a source of unfeigned joy and triumph to the supporters of the university monopoly among us.

Our regulations necessarily divide themselves into two parts—1. Those which are to be permanent; 2. Those which are only to continue in force for one year—the year of grace, as it has been termed. I shall consider these separately.

Every candidate for the license of our College must prove by examination his competent acquaintance with Latin, English, and mathematics; Greek, or one of the modern languages; natural philosophy, or logic and mental philosophy: and he is, besides, recommended to study comparative anatomy, natural history, and geology. I think, then, that you will admit that, as regards *preliminary education*, our requirements are sufficiently high. In regard to our scheme for *professional education*, it is as high as that demanded by any other examining board in the three kingdoms. In addition to undergoing these examinations, the candidate must produce certificates of character; and, all these having been laid before the Fellows of the College, he must then be balloted for by them, which is clearly shown in the regulations, though, judging from the postscript of your letter, it would appear to have been overlooked by you. Should a candidate, either by original talent, or by more assiduous application than his fellows, be fit to undergo these examinations at the age of twenty-one, he may then apply: and this *question of age* seems to be a very sore point with you and your brethren in the London College. You must remember, however, that the license of the College is not henceforth to be conferred as an honour, but is intended to become one of the portals for entering the profession—a portal which, it is believed, will be chosen by all those who prefer to commence practice under the auspices of a medical rather than a surgical body, or who, requiring a double qualification, prefer that their medical one shall be derived from a medical corporation rather than from an apothecaries' company. If, then, the license of the College is to be held as a warrant for entering the profession, it must be conferred at the age which other learned professions adopt as the suitable one for commencing the business of life; and as, in Scotland, twenty-one is the age fixed by the Bar and the Church for admission, and is the age at which universities confer the degree of Doctor of Medicine, it seems the suitable age for admitting to the license of the College those who are then able to obtain it. I know it is the fondly cherished wish of those who have been most active in promoting the passing of these regulations, that they may be the means of introducing, as family practitioners throughout the country, a class of men who, keeping free from the trade of druggists, will, by their superior character and attainments, be the means of elevating the profession.

But, in the second place, let me call your attention to the exceptional admissions now taking place during "this year of grace." You will observe that by regulation 8, any candidate for admission during that year must (1) have passed one or more of the existing licensing boards; (2) must give up the sale of drugs, if he has previously dealt in them; (3) must produce certificates of his fitness to be a licentiate of a college of physicians from hospital physicians or others of eminence; (4) must have his claims and character carefully scrutinised by the council of the college; (5) must be subjected to a ballot by the fellows, "a majority of two-thirds of those who vote" being necessary for his admission.

Now, fully to understand these regulations, you must have regard to the different state of the profession in Scotland and England. North of the Tweed, we do not believe that even the magical age of twenty-six can *make* a man a physician, nor can any amount of general or professional education manufacture the article. For several years back, our most eminent consulting physicians in Scotland have, with few exceptions, been trained in the school of family practice; and have only *become* consultants when they have proved their knowledge and skill. I might instance Abercrombie, Thomson, and the two last Presidents of the College of Physicians, Begbie and Maclagan, who all began life as family practitioners, became Fellows of the College of Surgeons, but eventually rising in repute, and finding their advice sought for by their less experienced brethren, relinquished family practice, joined the College of Physicians, and restricted their attendance to visits in consultation with the family practitioner. At this very time, with two or three exceptions, the whole Fellows of the College of Physicians are family practitioners, all doctors of medicine, practising physic but not pharmacy. The Medical Act, however, has made men consider more carefully their *status* in the profession; and there exists throughout the empire a large body of men of mature age, who, having begun life as surgeon apothecaries or general practitioners, but having established their fame as sound practitioners, are naturally anxious to connect themselves with a body of a higher position than that of a trading company, and are therefore willing to have nothing to do with the sale of drugs, and to confine their practice very much to the higher branches of medicine. All these are aspirations in the right direction for the elevation of the profession, and these it is the object of our College to foster and encourage. Men of this age cannot be expected to submit to examination like tyros just off the irons; and therefore the College agreed to rest satisfied with proof of their having been already examined by a competent medical board, and with requiring from them testimonials of undoubted character and qualification. There is no doubt that many *young* men have applied for admission, but, with few exceptions, these have all been told that they must be examined, as the clause was intended for the admission of practitioners of more mature age. The question has often been put why such a large proportion of those who apply are English, not Scottish practitioners? The answer is easy. North of the Tweed, we have no Apothecaries' Company; and almost every practitioner with us is already either a graduate in medicine of a university or connected with the College of Physicians or Surgeons.

It may surprise you, who have doubtless heard of the keen discussions to which these regulations gave rise in the College, to be told that the only difference was whether the license should be free to all who were duly qualified, or whether it should be restricted to University graduates.

The adherents of the University were naturally anxious for the latter, which would have left the licensing power in medicine almost exclusively in their hands. If the London College remains true to its traditional policy, this is an arrangement I would scarcely expect it to consider desirable; and yet I have every reason to believe that the movement which ended in the remonstrance which it addressed to us, originated with a Fellow who was in close correspondence with one of the least scrupulous of the University party in our College, smarting under recent defeat; and that your College thus unwittingly lent itself to the support of the University party, who, as you justly say, "are to be blamed for the active steps they have taken against the corporations." I think, then, that I am entitled to assume that, with the restrictions which I have explained, and with a thorough and conscientious application of all the rules, no one is likely to be admitted as a licentiate of the College of Physicians of Edinburgh who is unworthy of the honour. I cannot but look upon your systematic refusal to give certificates to aspirants for this honour as unjust to them and injurious to us.

I think you are certainly deficient in charity when you accuse our College in taking this step of "nothing else than an acknowledgment of poverty, and a flimsy attempt to enrich our exchequer by a questionable mode." Our finances fortunately are, and have been for years, in so flourishing a condition, as to place us quite beyond the reach of such a temptation. The plan is one which successive generations of our Fellows have had in contemplation for the last hundred years, and which has only now been accomplished by the energy and determination of those in office, and by the changes effected by the Medical Act. What do you say to your own College, with an exchequer admitted not to be overburdened, who have in the last few weeks admitted nearly three hundred applicants with qualifications not at all superior to those of ours? unless you hold that examinations of Universities are necessarily of a higher class than those of corporations?

And now I am entitled to ask an explanation from you in my turn. On the table of your College the following proposal is lying; not yet adopted, it is true, but still open for discussion, and recommended by a committee of great weight and influence. "VIII. That any person who shall not be engaged in the practice of pharmacy, and who by examination, *or otherwise*, shall have satisfied the said corporation touching his knowledge of medical and general science and literature, and complied with such other regulations as are or shall be required by the bye-laws of the said corporation, shall be entitled to receive a license to practise as a physician, and to become a member of the said corporation." Have we gone a step farther than this? And until such a proposal had been rejected by your body, was it wise in it to remonstrate with us for passing a similar regulation, thereby strengthening the hands of those who wish us no good, and enabling them to speak of the "battle of the Colleges," as if we were ranged against one another in an attitude of determined hostility. "*Divide et Impera*" has long been the motto of our opponents; let us not forget the fable of the bundle of sticks.

I shall conclude this too long letter by a few remarks on that singularly ill-constructed and unworkable clause in the Medical Act (XLVII), commonly called the Hadfield clause, which enables any fellow, member, or licentiate of our, or of the Irish College, who may be practising as a physician in

England, to demand admission as a "member" of your College on the payment of the registration fee of two pounds. The introduction of such a clause was not sought for by the Edinburgh College; and they have stated that its modification or abolition would not be opposed by them. It is manifestly imperfect, as the three grades in the Scottish and Irish Colleges can demand admission only into one grade in the English, and by it the lowest grade in the Scottish might enter the middle grade of the English. This clause *must* be altered, and the sooner the better; and I have no doubt that when that alteration is effected, the "battle of the Colleges" will be ended, and we shall again stand shoulder to shoulder, prepared to oppose an united resistance to those at whose hands we have already suffered such grievous wrong.

It is much to be regretted that mutual consultations had not preceded the alterations of the laws of any of the Colleges. Our President has stated that he made a written proposal to your College and the Irish one for such a consultation; but that, although accepted by the Irish College, your President declined it.

I regret if it be, as you say, that we "have lost immeasurably in the opinion of the London College" by our recent regulations; it only convinces me how great the power of misrepresentation may be; but much as I value the good opinion of the London College, I trust we shall never seek to purchase it by abandoning a course of action which I firmly believe will do more to elevate the profession of medicine than any medical act which we have obtained, or are likely to obtain, for a hundred years to come.

Believe me, yours very truly, ——.

ARE THE FELLOWS AND LICENTIATES OF COLLEGES OF PHYSICIANS ENTITLED TO ASSUME THE TITLE OF M.D.?

Sir,—You say I am labouring under a mistake; and that neither the Fellows nor Licentiates of the Royal College of Physicians of London or Edinburgh are legally entitled to add the title of M.D. to their names; and that, if they do affix the M.D. to their names, it is granted by *courtesy* and *custom* only. If you are correct, this courtesy and custom have prevailed from time immemorial. How do you explain the sentence in the diploma of the London College, "Eidemque summis honoribus, *et titulis*, et privilegiis, quæcunque hic vel alibi *medicis concedi solent*"? Now, the power of the London College is derived, says the same diploma, "auctoritate nobis a Domino Rege et Parliamento commissâ". Now, it did appear to me that, a Royal Charter and an Act of Parliament having given the London College of Physicians power, on certain conditions, to grant *honours, titles, and privileges*, which, either here or elsewhere, are accustomed to be given to physicians, would have been a sufficient warrant to any Fellow or Licentiate for adding M.D. to his name; for M.D. has been not only the popular, but also the academic distinction or affix to the name of a physician. If I labour under a mistake, some of our most eminent men, past as well as present, have laboured under the same error. Jonathan Pereira did: he had no university diploma. I could name many more. The question simply is, Is the M.D. *ex necessitate* a degree granted by some University? and does the diploma of the London College not confer a right legally to the holder of the diploma of adding M.D. to his name? Until the passing of the Medical Registration Bill, the only *legal* physicians in England were the Fellows and Licentiates of London, and the Licentiates of Oxford and Cambridge; but Oxford and Cambridge men could not practise in London, or within seven miles thereof, if they had not submitted themselves to the examination of the London College. The Edinburgh degree, by the new Registration Act, is recognised throughout the empire, and confers the same title as the London degree; the only difference being, that the Edinburgh Fellow or Licentiate would write M.D.Edin., and the London Fellow or Licentiate M.D.Lond. None but the Fellows of either College have a share in the management or direction of the College affairs; but all have the same privileges, as far as *title* and *practice* are concerned. Most men certainly take out the licentiateship both of London and Edinburgh, for the sake of the title thereby conferred; and both Colleges hold out the right to the title. I am, etc., Devonshire.

June 1859.

[We must, until we are proved to be wrong, adhere, with all due respect to our correspondent, to the statement to which he refers as having been made by us; viz., that the Licentiates and Fellows of neither College of Physicians have any legal right to affix M.D. to their names; and that, if they do affix this appendage, it is granted by courtesy and custom only. Our correspondent cannot have read with sufficient care the diploma of the London College, or he would have found, after the words "concedi solent", the important phrase "*intra auctoritatis nostræ limites*". And to grant the title of M.D. is, we fancy, *beyond*, and not *within*, the limits of the authority of the College. The late Dr. Jonathan Pereira was M.D. of Erlangen: he is so described in the *Medical Directories* of several years back. Editor.]

TREATMENT OF CEREBRAL DISEASE WITH AMAUROSIS IN A CHILD.

Letter from F. B. Jessett, Esq.

Sir,—Having seen in your paper of last week a letter from a gentleman, wishing to know the treatment employed in the case of Ellen Coe (cerebral disease with amaurosis), reported by me in your Journal two weeks ago, I take this opportunity of stating the principal points of the treatment.

When the child was first admitted into the hospital, on November 27th, she was ordered to have a grain of iodide of potassium three times a day in three drachms of carraway water. On November 29th, the dose was increased to two grains; and on the 30th, as the child complained of pain in the head, and there was great heat of the head, accompanied by a pulse of 150, the iodide of potassium was omitted, and she was ordered to have her head shaved and ice applied. This treatment was persevered with until December 18th, when the iodide of potassium was again ordered, and she continued taking it until she left the hospital.

I am, etc., Fred. B. Jessett.

Hospital for Sick Children, June 7th, 1859.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

** In these lists, an asterisk is prefixed to the names of Members of the Association.*

BIRTHS.

Mathews. On June 7th, at 1, Winterslow Place, Brixton, the wife of Robert Mathews, Esq., Surgeon, of a daughter.

Wilkins. On May 30th, at Norwood, the wife of Jacob Wilkins, M.D., Assistant-Surgeon Madras Army, of a daughter.

MARRIAGES.

Brook—Darvill. Brook, William Frederick, Esq., of Newington, to Jane Augusta, only daughter of the late John Thomas Darvill, Esq., Surgeon, of Great Berkhampstead, Herts, at St. Giles's, Camberwell, on June 7th.

Compton—Smith. Compton, William, Esq., of Newport, Monmouthshire, to Hannah, second daughter of the late J. Smith, Esq., Surgeon, of Welford, Northamptonshire, at Surwarton, Salop, on June 7th.

Haines—Tweed. Haines, Frederick, Esq., of Maida Hill, to Laura Ann Maria, fourth daughter of J. J. Tweed, Esq., Surgeon, of Alfred Place, Bedford Square, at Boreham, Essex, on June 1st.

Hart—Levy. *Hart, Ernest, Esq., Surgeon, of 69, Wimpole Street, to Rosetta, youngest daughter of Nathaniel Levy, Esq., of Upper Montague Street, Russell Square, on June 6th.

Higgs—Walker. Higgs, T. F., Esq., Surgeon, of New Radnor, to Helena Griffin, second daughter of J. G. Walker, Esq., of Netherton, near Dudley, on June 2nd.

Huntington—Protheroe. Huntington, the Rev. William, M.A., rector of St. John's, Manchester, to Maria, eldest daughter of Griffith Protheroe, Esq., of Narberth, Surgeon, on June 2nd.

Roe—Winn. Roe, Robert, Esq., of Lynmouth, Devon, to Mary Teresa, eldest daughter of James M. Winn, M.D., of London, at Christ Church, St. Kilda, Melbourne, on April 2nd.

WILSON—BOWMAN. Wilson, James A. K., Esq., to Mary Agnes, eldest daughter of the late Jonathan Bowman, M.D., of Liverpool, on June 2nd.

DEATHS.

DAVIDSON, Thomas, Esq., Surgeon H.E.I.C.S., at Kirkcaldy, on June 1st.

*HUNT, Frederick B., M.D., at Farningham, Kent, lately.

JONES. On June 5th, at Sydenham, aged 3 years and 10 months, Emily Frances, fourth daughter, of Edward Jones, M.D.

PRING, Daniel, M.D., formerly of Bath, at Taunton, aged 69, on June 3rd.

SHELLEY, Hubert, M.B.Lond., at the Cape of Good Hope, aged 34, on March 31st.

WADDINGTON, Joshua, Esq., Surgeon, at Margate, aged 65, on June 7th.

PASS LISTS.

ROYAL COLLEGE OF PHYSICIANS. At the Comitia Majora, held on Saturday, June 4th, the following gentlemen were admitted Licentiates of the College, under the recently enacted temporary by-laws:—

WHITEHEAD, James, M.D., Manchester
WINSLOW, Forbes Benignus, Cavendish Square

ROYAL COLLEGE OF SURGEONS. MEMBERS admitted at the meeting of the Court of Examiners, on Friday, June 3rd, 1859:—

ALLINSON, Anthony, Lynn, Norfolk
AYLING, William Henry, Great Portland Street, Portland Place
AYRE, John Joseph, Colne, Lancashire
GARMAN, Henry Vincent, Bow Road
GARMAN, William Chancellor, Wednesbury, Staffordshire
HARVEY, Alfred, Tavistock Street, Covent Garden
HORROCKS, William Henry, Liverpool
HOWLET, William, Wellington, Shropshire
JACOB, John, Goswell Road
KELSON, Charles John, Bristol
KENNEDY, Angus, Stratford Hall, Essex
KINGSTON, Robert, Woolsthorpe, near Grantham
LEAKE, Jonas, Old Kent Road
LOVE, John Henry, Brook Street, Grosvenor Square
MASSINGHAM, Joseph Ebenezer, Green Street, Bethnal Green
MOODY, John, Strabane, Ireland
MORRISON, James Giles, Edgware Road
PAUL, James Thomas, Burton Crescent
ROSE, Charles, Barnes Place, Mile End
WADE, Henry Thomas, Derby
WALKER, George Richard Pratt, Bow Lane, Cheapside

THE FELLOWSHIP. The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on June 8th:—

CRADDOCK, William, Bengal Army: diploma of membership dated May 4th, 1840
DENNE, William, Bedford: August 4th, 1837
JONES, Richard, Brackley: April 9th, 1847
MARKWICK, Alfred, Trinity Square: July 21st, 1843
MARSHALL, William Gurslave, Colney Hatch: July 30th, 1841
SHEPHERD, William George, Claremont Square: March 1st, 1839
SIMPSON, James Murray, Southampton: June 2nd, 1826
STONE, Thomas, Christ's Hospital: July 21st, 1834
THORPE, Bower, Staveley: April 22nd, 1839
WARWICK, John, Stamford Hill: June 20th, 1843
WATERWORTH, Henry, Newport, Isle of Wight: February 22nd, 1833
WELLS, Warrick Walter, Bengal Army: May 8th, 1835
WHITE, William Todd, Kempsey: March 5th, 1841

UNIVERSITY OF CAMBRIDGE. The following gentlemen have passed the first examination for M.B.:—

CARVER, E., B.A. — LIVEING, E., B.A.
DICKINSON, W. — PARTRIDGE, T., B.A.
GRIFFITH, J. C., M.A. — WARD, S., B.A.

The following gentlemen have passed the second examination for M.B., and are admitted to the degree:—

CARVER, E., B.A. — HARRISON, E., M.A.
DICKINSON, W. — LIVEING, E., B.A.

APOTHECARIES' HALL. Members admitted on Thursday, June 2nd, 1859:—

CHAPPELL, John James, Axmouth, Devon
DAVIES, John Sides, Oswestry, Shropshire
FENNELL, Charles, Bromley, Kent
PALEY, Edward, Leeds
PALK, Henry, Southampton
REED, Thomas Sleeman, Helston, Cornwall
STEVENSON, James, Totness, Devon

The following gentlemen also, on the same day, passed their first examination:—

DAVY, Richard, Chumleigh, North Devon
HUDSON, Henry, Newport, Yorkshire
TRUMAN, Edgar Beckit, Poultry, Nottingham

HEALTH OF LONDON:—WEEK ENDING JUNE 4TH, 1859.

[From the Registrar-General's Report.]

UNDER the influence of fine weather, the weekly deaths in London have fallen below a thousand. In the five weeks that have elapsed since the end of April, the mortality has continued to decline; and in the week that ended last Saturday, the total deaths numbered 998. In the ten years 1849-58, the average number of deaths in the weeks corresponding with last week was 979; but as the deaths returned for last week occurred in an increased population, they should be compared with the average raised in proportion to the increase; namely, with 1076. The result of the comparison is that the deaths of last week were less by 78 than the number which would have occurred if the average rate of mortality for the beginning of June had prevailed.

The deaths in the first week of May were higher by 110 than they were last week; and the mean temperature of the air in the former period, 48·5°, was lower by 13·8° than it was last week, when it rose to 62·3°. The medical officers of the *Dreadnought* Hospital ship write that they "have been disgusted, particularly since Monday, with the offensive effluvia from the water."

The deaths from scarlatina, which were 50 in the previous week, declined to 42; and those from diphtheria exhibit a considerable reduction, having been only seven last week. The cases in which this latter disease was fatal, occurred as follows:—One at 5, Alfred Place, Harrow Road, and one at 3, Windsor Place, also in Paddington; one at 18, Chesham Place; one at 8a, Offord Road, Islington; one at 42, Bedford Street, Covent Garden; one at 36, John Street, Newington; and one in Love Lane, Wandsworth. The deaths from bronchitis were 64, the corrected average being also 64; those from pneumonia were 49, the corrected average being 62. Phthisis carried off 145 persons, a number which differs little from that calculated on the experience of corresponding weeks. Three children died from measles in the Workhouse, Gray's Inn Lane. Nine children and four adults died last week from small-pox; six infants from syphilis; three persons from intemperance, besides four others from delirium tremens. Of 33 persons whose deaths were "violent", 26 died from accident or negligence, six by suicide, and one infant by murder. A girl, of 15 years, died on 31st May, in the Ophthalmic Hospital, City, under the influence of chloroform.

Last week the births of 786 boys and 807 girls, in all 1,593 children, were registered in London. In the ten corresponding weeks of the years 1849-58, the average number was 1,485.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·563 in. The barometer fell from 29·71 in. on Wednesday to 29·43 in. on the following day, being the highest and lowest points in the week. The mean temperature of the week was 62·3°, which is 6° higher than the average of the same week in 43 years (as determined by Mr. Glaisher). The mean daily temperature was above the average throughout the week, and on Monday and Saturday this excess was nearly equal to 9°. The thermometer in the shade fell to 49·1°, the lowest point in the week, on Wednesday; and rose to its highest, 79°, on Saturday. The range of temperature in the week was therefore 29·9°; the mean daily range was 20·2°. The thermometer in the sun rose to 104° on Saturday. The difference between the mean dew-point temperature and air temperature was 5·7°. The mean degree of humidity of the air was 83. The mean temperature of the water of the Thames was 61°. The wind blew generally from the north-east. The rain-fall of the week was 0·71 in. There was thunder on the afternoon of Saturday.

DISSECTING A QUACK. "To puzzle a Philadelphia lawyer," is a common saying with Transatlantic brethren; but the following is related of the manner in which one of those gentlemen puzzled a quack, who was bringing a suit for medical services. *Counsel*—Did you treat the patient according to the most approved rules of surgery? *Witness*—Certainly, by all means, I did. *Counsel*—Did you decapitate him? *Witness*—Undoubtedly, I did that as a matter of course. *Counsel*—Did you perform the Cæsarean operation upon him? *Witness*—Why, of course; his condition required it; and it was attended with great success. *Counsel*—Did you, now, doctor, subject his person to autopsy? *Witness*—Certainly; that was the best remedy I adopted. *Counsel*—Well, then, doctor, as you first cut off the defendant's head, then ripped up his body, and afterwards dissected him, and he still survives it, I have no more to ask. (*Edinburgh Medical Journal.*)

THE LONDON MEDICAL REGISTRATION ASSOCIATION. A preliminary meeting has taken place, attended by Drs. Hart Vinen (Chairman); Robt. Norton, Handfield Jones, F.R.S.; Burke Ryan (Treasurer and Hon. Sec.); Chowne, Tulloch; and Messrs. Wall, Royston, Clark, and Reece, for the purpose of calling a general meeting of the medical practitioners of Paddington, Bayswater, Notting Hill, and North Kensington, at the Queen's Hotel, Queen's Road, Bayswater, on Wednesday, the 15th instant, at eight o'clock, P.M. The object is to assist the central Association in the repression of illegal practice; and it is hoped that the meeting will be numerously attended.

TO CORRESPONDENTS.

ANONYMOUS CORRESPONDENTS should always enclose their names to the Editor; not for publication, but in token of good faith. No attention can be paid to communications not thus authenticated.

Members should remember that corrections for the current week's JOURNAL should not arrive later than Wednesday.

NOTICE.—DR. WYNTER will feel obliged if the Associates will address all Post Office Orders in payment of Subscriptions, to the Publisher, MR. THOMAS JOHN HONEYMAN, 37, Great Queen Street, Lincoln's Inn Fields, London, W.C., "Bloomsbury Branch"; and he would also feel obliged by their sending all communications respecting the non-receipt of the Journal, to the same address; as both these matters are out of the province of the Editor.

POSTAGE OF MANUSCRIPT AND PRINTED MATTER.

Any amount of manuscript or printed matter, singly or together, provided it contains nothing in the form of a written letter, is transmitted through the post, in packets *open at the ends*, at the following rates: not exceeding 4 ounces, one penny; above 4 and not exceeding 8 ounces, twopence; above 8 ounces and not exceeding 1 pound, fourpence; for every additional half-pound or under, twopence.

Communications have been received from:—DR. R. U. WEST; MR. T. W. NUNN; DR. BURKE RYAN; DR. T. INMAN; DR. LIONEL BEALE; DR. ADDISON; MR. T. HOLMES; MR. W. COPNEY; DR. JAMES RUSSELL; DR. HYDE SALTER; MR. TOYNBEE; DR. P. H. WILLIAMS; AN OFFICE-BEARER OF THE EDINBURGH COLLEGE OF PHYSICIANS; DR. TOOGOOD; MR. H. TERRY, JUN.; MR. G. BOTTOMLEY; MR. F. B. JESSETT; MR. A. HOCKLEY; THE SECRETARY OF THE OBSTETRICAL SOCIETY; F.R.C.S.; MR. T. PAGET; MR. T. M. STONE; MR. G. M. HUMPHRY; and DR. J. WATSON.

BOOKS RECEIVED.

[* *An Asterisk is prefixed to the names of Members of the Association.*]

1. Epiphora, or Watery Eye: Its successful Treatment by the New Method of Dilatation. With Illustrative Cases. By *James Vose Solomon. London: Churchill. Birmingham: Cornish. 1859.
2. On Cancer. By Maurice H. Collis, M.B. (In the *Dublin Quarterly Journal of Medical Science*). Dublin: 1859.
3. Sanitary Progress in Croydon. By *Alfred Carpenter, M.B. Croydon: 1859.
4. On the Prevention of Consumption by the Hypophosphites. By J. Francis Churchill, M.D. London and Paris: 1859.

ADVERTISEMENTS.

TO ADVERTISERS.

British Medical Journal.— Office, 37, GREAT QUEEN STREET, LINCOLN'S INN FIELDS, LONDON, W.C.

The Journal of the British Medical Association is published every Saturday, and is transmitted direct from the Office to BETWEEN TWO AND THREE THOUSAND Members of the Association in all parts of the United Kingdom, among whom are the Medical Officers of most Hospitals and Dispensaries, and the majority of the leading members of the profession. It is also taken in by many Libraries and Medical Societies, and thus comes under the notice of a large number of Medical Men not connected with the Association.

The following were the numbers of Stamps issued to the four London weekly Medical periodicals in 1857.

British Medical Journal	**106,534**
Lancet	60,250
Medical Circular	57,600
Medical Times and Gazette	44,725

SCALE OF CHARGES FOR ADVERTISEMENTS.

Four lines and under	£0	2	6
Each additional line	0	0	6
A whole column	2	15	0
A page	5	0	0

A line contains ten words.

When a series of insertions of the same advertisement is ordered, a reduction is made in the above charges.

Advertisements ought to be delivered and paid for at the Office on the Thursday preceding publication; or if not paid for at the time, should be accompanied by a respectable reference.

Post-Office Orders are to be made payable at the "Bloomsbury Branch" Office, to THOMAS JOHN HONEYMAN (the Publisher), 37, Great Queen Street, Lincoln's Inn Fields, London, W.C.

BRITISH MEDICAL ASSOCIATION.

The TWENTY-SEVENTH ANNUAL MEETING of the BRITISH MEDICAL ASSOCIATION will be holden in LIVERPOOL, on Wednesday, Thursday, and Friday, the 27th, 28th, and 29th days of July.

President—W. P. ALISON, M.D., F.R.S.E., Edinburgh.

President-Elect—JAMES R. W. VOSE, M.D., Liverpool.

The Address in Medicine will be delivered by Edward Waters, M.D., Chester, President-elect of the Lancashire and Cheshire Branch.

The Address in Physiology will be delivered by A. T. H. Waters, Esq., Liverpool, Lecturer on Anatomy and Physiology in the Royal Infirmary School of Medicine.

It is particularly requested that all members who propose to read papers will communicate with the General Secretary without delay.

Worcester, April 26th, 1859. PHILIP H. WILLIAMS, M.D, *General Secretary.*